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ST. LOUIS: A CITY AND ITS SUBURBS

PREPARED FOR THE NATIONAL SCIENCE FOUNDATION

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PREFACE

This report summarizes the results and implications of a year of analytical work concerning the decline of St. Louis as the central city of a metropolitan area, the implications for the city's future, and policy strategies for improving these future prospects. Although the work is primarily that of The Rand Corporation, vital assistance was provided by faculty members at three major universities in the St. Louis area: Washington University, St. Louis University, and the University of Missouri, St. Louis. The work was supported by the National Science Foundation. The project was one of a series of three urban studies that also includes an analysis of causes, effects, and control of two decades of explosive growth in San Jose, and adaptation to acute aerospace recession in Seattle.

This report is oriented primarily toward the policy implications of the St. Louis analysis, and is intended for use by policymakers concerned with the future of the area.

SUMMARY

This report summarizes the research findings and policy implications of a series of studies conducted under the St. Louis project of the Rand Urban Policy Analysis Program. The analysis in St. Louis has been directed toward evaluating alternatives for decisionmakers at local, state, and federal levels who must deal with urban decline.

The central concern in St. Louis is the city's significant decline in population and economic activity that occurred in the 1960s, and the rapid rate of building and neighborhood abandonment that accompanied it. Because abandonment itself might open possibilities for new development, the report asks what those possibilities are, how probable their achievement is, and how policymakers might encourage the realization of desired changes. Three possible futures for the city are posed: continued decline; stabilization in a new role as an increasingly black suburb; and return to a former role as the center of economic activity in the metropolitan area. As things stand, the most likely prognosis is for continued decline. Given outside revenue sources, however, the city of St. Louis might assume a new role as a large suburb among many other suburbs, making the transition easier for its population and institutions.

ORIGINS OF ST. LOUIS'S PRESENT SITUATION

- *Decline in St. Louis is mainly a function of the same trends that have stimulated movement from central cities to suburbs across the United States.* The fast-paced decentralization of all American urban areas since World War II has been stimulated mainly by the desire for living amenities and productive facilities that could be provided most easily and cheaply at the periphery of cities. Rising incomes and improved transportation systems have facilitated the move to the suburbs. Certain federal policies—real estate tax incentives, interstate highway development, FHA and VA mortgage programs—have accelerated these trends.
- *However, St. Louis differs from some central cities in manifesting rapid and absolute declines in central city population and business activity.* That is, rapid metropolitan growth has brought explosive suburban development to some American urban areas—mostly in the West and parts of the South—without inducing high rates of abandonment in their central cities.

• *St. Louis's unusual rate of decline has come about because many phenomena that appear to accelerate central city decline in older metropolitan areas combine in unusual strength there.* Many central cities of the East and Midwest contain a large stock of housing and industrial capital that is old and expensive to maintain and restore, further increasing the advantages of suburban location. This is particularly evident in St. Louis, a large portion of which was urbanized before 1900.

The large amounts of flat farmland around St. Louis also made decentralization easier. Such land was readily developed for industrial and residential uses.

St. Louis is a small city of 61 square miles. Its political boundaries, frozen since 1876, have prevented the city from expanding its resource base as its proportion of disadvantaged residents increased.

Large in-migrations of groups that vary from the existing population—such as rural, low-income families—appear to hasten the departure of more affluent families to the suburbs. St. Louis has been an important port of entry into urban life for rural migrants. The fact that many of these migrants are black seems to have precipitated the rapid departure of whites from particular neighborhoods; however, our research suggests that departures of people from the city are more class-related than race-related. At most income levels, blacks and whites left at about the same rate during the 1960s.

PROGNOSES FOR ST. LOUIS

The report argues that without major policy changes beyond the local level, the city will most likely continue to decline. It is unlikely either to become a stable, increasingly black suburb or to return to its former central economic function. Several demographic and economic trends induce this conclusion:

• Heavy and prolonged out-migration of the city's younger white residents has left behind an elderly population in which death rates exceed birth rates. Growth of the white population therefore depends on massive in-migration—an improbable development.

• While the city's black population continues to grow through natural increase, it began to decline in 1969, indicating a net migratory loss severe enough to offset its natural increase.

• The city and its suburbs received unequal shares of metropolitan economic growth during the 1960s, with most industrial sectors declining in the city and all industrial sectors growing in the suburbs. If industrial location trends during the last half of the 1960s continue for another five years, St. Louis County* will contain that share of metropolitan business activity usually characteristic of a central city.

Neither a survey of industrial developers in the area, a 1967 survey of people's expressed preferences for residential location in the area, nor more episodic evidence about industrial and residential location since 1970 supported the hypothesis that past decline has created new conditions in the city that will mitigate or even reverse past trends.

The city has not "bottomed out" so that large blocks of inexpensive empty land will readily stimulate new forms of investment. Rather, land remains relatively

*The City of St. Louis is entirely separate in area and jurisdiction from the County of St. Louis.

expensive to develop in the city. Nor have reduced numbers of people and businesses made public goods and services unequivocally easier to provide. Indeed, metropolitan decentralization has reduced the city's share of more affluent residents and increased its share of disadvantaged ones. Economic growth, as well, has gravitated to the suburbs. Thus, public revenues have become progressively more difficult to generate locally. *New resources, available to the city from sources outside the city, are essential to any improvement.*

ALTERNATIVE STRATEGIES FOR THE FUTURE

Just as local policies did not *cause* the decline, local policies cannot readily change the trends and characteristics that did cause it and are still operative. *The analysis suggests that, among the alternatives open to the city, promoting a new role for St. Louis as one of many large suburban centers of economic and residential life holds more promise than reviving the traditional central city functions.*

One strategy for assuming a more suburban role is to entertain administrative or jurisdictional changes that would allow municipal services and regulations to be geared to varying neighborhood needs. In this way, the city's large, heterogeneous population might capture some of the benefits of small homogeneous (and affluent) suburban municipalities where residents can purchase and control the public goods and services they want.

To succeed, however, this strategy will require new outside resources—new mechanisms for generating revenues that make the poor a smaller financial burden for the jurisdictions where they live. Several mechanisms for doing this are offered for consideration:

- A more substantial federal revenue-sharing program.
- A state revenue-sharing program to support selected public goods.
- A metropolitan revenue program, sharing revenue generated by industry in the metropolitan area.
- A metropolitan earnings tax.

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The author wishes to thank those who carried out the analysis on which this report is based: Sinclair Coleman, Leola Cutler, Peter deLeon, John Enns, Cyrus Gardner, Peter Grandstaff, Marie Hoeppner, Dempster Holland, Charles Leven, James Little, Robert Markland, Peter Morrison, Hugh Nourse, Gerald Payne, Betsy Schmidt, Richard Slitor, and George Wendel.

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I. INTRODUCTION

The St. Louis Standard Metropolitan Statistical Area[1] encompasses the City of St. Louis and six counties lying on both sides of the Mississippi River: St. Louis, St. Charles, Franklin, and Jefferson Counties in Missouri, and St. Clair and Madison Counties in Illinois.[2] Most of the SMSA lies in Missouri, three-fifths of it west of the City of St. Louis; the Mississippi forms the eastern boundary of its central city. The City of St. Louis is entirely separate in area and jurisdiction from the County of St. Louis. The area surrounding metropolitan St. Louis is semirural, dotted with medium-sized towns. The closest metropolitan area of comparable size is Kansas City, about 275 miles away.

In 1970, the population of the St. Louis SMSA was about two and a half million. From 1960 to 1970 it had increased by only 12 percent, a rate lower than the average national metropolitan increase of 17 percent. Economic growth in the area has also been slow. As shown in Table 1, in the late 1960s the St. Louis area lagged behind the rest of the nation in growth of total income, per capita income, and employment.

The City and County of St. Louis together contain about three-quarters of the SMSA's population—622,000 in the city and 951,000 in the county.[3] A strong and persistent westward progression in the area's settlement pattern has steadily drained St. Louis's share of area population and economic activity. From 1960 to 1970, the city's population declined 17 percent while the suburban population increased by nearly a third; jobs declined close to 15 percent in the city but nearly doubled in the suburbs.

Stark reminders of the city's demographic and economic losses are 2200 vacant and vandalized buildings, occupying an average of one-tenth of an acre each. Understandably, St. Louis believes it is plagued by that set of problems widely lumped together as "the urban crisis": a declining tax base, rising costs for providing services, a high crime rate, a problematic school system, high unemployment, racial inequities, and a spectacular rate of building and neighborhood abandonment.

Our analysis does not attempt to diagnose completely this formulation of the urban crisis. We give slight attention to problems that occur with great frequency

[1] The terms "SMSA," "metropolitan area," and "metropolitan St. Louis" are used interchangeably in this report.

[2] Based on data developed in the 1970 Census, two counties in Illinois (Clinton and Monroe) have since been added to the St. Louis SMSA. The data for this report, however, are based on the SMSA definition as of 1970.

[3] Hereafter, "St. Louis" will refer to the city, while St. Louis County will be so designated.

Table 1

COMPARISON OF NATIONAL AND ST. LOUIS SMSA ECONOMIC GROWTH, 1966-1970

Item	Average Annual Growth, 1966-1970 (%)	
	U.S.	St. Louis SMSA
Total employment	1.9	1.0
Total income	2.8	2.2
Per capita disposable income	3.2	1.4

SOURCE: Data provided by Regional Economics Information System, Bureau of Economic Analysis, Office of Business Economics, U.S. Department of Commerce; and from *Economic Report of the President*, 1971.

not only in cities, but in other places as well: crime, poor schooling, unemployment, racial inequities. Instead, we concentrate on events more peculiar to the *structural* changes cities are undergoing, exploring the implications for a central city of the redistribution of population and economic activity in its metropolitan area. For this purpose, we chose building and neighborhood abandonment in St. Louis as the initial focus of our study.

Abandonment is both a symptom and a cause of problems, but by making land available for new uses, it also offers possibilities of new directions for the future. Our objectives were to determine what those possibilities are, how probable their achievement is, and how policymakers might encourage the realization of desired changes. For purposes of analysis, we pose three alternative futures for St. Louis: continued decline; stabilization in a new role as an increasingly black suburb; and return to a former role as the center of economic activity in the metropolitan area.[4] Which of these futures is the likeliest, and how policymakers might affect future directions, are analyzed by examining past change and current growth potential in St. Louis as a guide to the future.

The analysis has required methods and concepts from more than one discipline. We have tried here—as in other Rand urban studies—to assemble a broad spectrum of evidence bearing on the reasons for St. Louis's current condition and prognoses for its future from a number of disciplines, including demography, economics, sociology, and political science. To interpret this evidence, we have used statistical techniques and explored various lines of argument to form a coherent picture of where the weight of the analysis and prognosis lies.

The picture, in brief, suggests that decline in St. Louis is mainly a function of the same trends that have stimulated movement from central cities to suburbs across the United States. The rate of decline is more acute in St. Louis because several factors that accelerate decline combine in unusual strength there. The problems of decline, however, do not lie in the fact that population and business have

[4] These futures do not encompass all possible futures for the city. They include those futures that appeared both feasible and representative of the range of possibilities after initial data analysis.

redistributed themselves within the metropolitan area, with the city losing and its suburbs gaining. Rather, the problem for the city is that it wants to remain attractive to its current residents, to its metropolitan population, and to visitors—offering well-maintained public goods and high levels of public services geared to a variety of tastes. Its resources to do this, however, are more and more diminished because its more affluent citizens have moved to the suburbs in massive numbers, and economic growth has gravitated with them.

These two issues—metropolitan population and economic redistribution, and city redevelopment—are separable. However, our question is whether the redistribution has created new conditions in the city (e.g., more available land) that will attract new investment essential to central city redevelopment. Our analysis leads us to believe this is unlikely: relative to its own conditions in the past, St. Louis is better off in certain ways; relative to its suburbs in the present, St. Louis remains less attractive to new investment in important ways. We suggest that instead of focusing on the city as a geographic entity needing restoration, local policymakers focus on St. Louis's assuming a somewhat different role, functioning more like a suburb or a set of suburbs within the metropolitan area. However, as with all other policy directions we considered, this too requires additional revenues not now available to the city.

Section II of this report describes our research methodology. Section III—the keystone of the report—then applies the methodology: St. Louis is examined successively in terms of demographic trends, both within the parts of the metropolitan area and between it and other areas; in similar economic terms, examining both the economy of the area and the division of the economy between the central city and its suburbs; in regard to racial hypotheses about urban change, such as "white flight"; and finally, in terms of the additional impetus to decline imparted by federal and local policies.

The final section of the report turns to policy strategies for the future. These strategies do not take the form of specific policy recommendations for St. Louis. Rather, they form more of an agenda for policymakers. Time and budget constraints required us to be selective in the analysis of the complex syndrome of urban decline; important parts of the research we think necessary to decisionmaking in St. Louis either remain to be done or are still in process at local universities in the area. Our analysis has been directed toward examining alternatives for decisionmakers at local, state, and federal levels who must deal with urban decline.

II. METHODOLOGY

CONCEPTUAL DESIGN

Initial View: Abandonment as a Problem

Rand's decision to focus on rapid neighborhood change and abandonment in St. Louis was based on two considerations. First, city officials and other knowledgeable citizens considered abandonment to be the city's most serious problem. Second, abandonment as a prime symptom of central city decline was an appropriate conceptual counterpoint to the phenomenon of rapid growth central to our research in the San Jose metropolitan area.

In the St. Louis research, abandonment is considered to have occurred wherever there are empty, vandalized buildings and empty spaces within older neighborhoods. For our purposes, empty buildings and land are seen as part of the city's spatial "inventory"—in the usual sense of inventory as goods held in the anticipation of changing demand. Empty land is most appropriately called inventory, since it provides space for the expansion of existing land uses or the introduction of new land uses. However, empty buildings—vandalized, awaiting demolition—can be thought of as "hung-up" inventory.

Our definition of the end result of abandonment as *inventory* for St. Louis was influenced by two major considerations:

1. The process of abandonment was not new to St. Louis. In 1936, the St. Louis City Plan Commission published a study of shifts in land use that said:

> To state the condition in its simplest terms—if adequate measures are not taken, the city is faced with gradual economic and social collapse. The older central areas of the city are being abandoned, and this insidious trend will continue until the entire city is engulfed.[1]

Before the recommendations of that Commission report could be fully implemented, exogenous demand induced by World War II rapidly accelerated job opportunities at the same time that new housing construction was narrowly restricted. By 1950 these conditions swelled the city's population to 857,000, close to its peak of the century a few years later. With the end of the war, new housing construction grew

[1] Institute for Urban and Regional Studies, *Urban Decay in St. Louis*, Washington University, St. Louis, Missouri, March 1972, p. 13.

vigorously—but in St. Louis County, not in the city—and existing densities in the city placed the county at a greater competitive advantage.

During the 1960s, abandonment in St. Louis was widespread enough to warrant three studies funded by the U.S. Department of Housing and Urban Development,[2] a study by the Urban League,[3] and a survey sponsored by the City Plan Commission on the problem of residential blight.[4] It also stimulated a variety of research interests and projects at local universities on problems of neighborhood transition. We have relied on this past and continuing research to provide richness of detail in the microanalysis of neighborhood change, and deployed our resources toward analyzing the possibilities of alternative land use for the future—viewing abandonment as inventory.

2. Although abandonment figured as a major problem in most of our early discussions with local officials and citizens, many people understood that abandonment could also be viewed as an opportunity. We therefore reexamined a basic question: For *whom* is abandonment a problem? Since the voluntary relocation of households or businesses from one area to another ordinarily suggests improvement, abandonment may be viewed as an indicator of rising incomes, better housing, and land use opportunities for some people and businesses.

For people left behind, however, some problems worsen. Public services decline —at the very least, in effectiveness—as the private incentives to housing and neighborhood maintenance diminish. And large blighted areas not only uglify a city but can intensify old problems and generate new ones, such as increased vulnerability to fire.

While the problems of declining areas often dominate local concern, many St. Louis decisionmakers had begun to view abandonment as a possibility for improvements. As evidence, several significant municipal codes were changed in the 1960s: until the early 1960s, owner-protective code requirements caused demolition of a building to lag behind notification of condemnation by six months to a year; by 1970, code revisions had reduced that time to one week.[5] Since October 1970, the city has been engaged in a massive program, financed primarily by the federal government, to remove condemned buildings.[6]

Restructuring: The Future of the Central City

Given the growing view of abandonment as opportunity, it seemed that policymakers in St. Louis might benefit from research oriented toward future expectations, asking *how the city might manage the inventory it is accumulating.* How a city manages its inventory largely depends, of course, on what it can anticipate about

[2] U.S. Department of Housing and Urban Development, *A Study of the Problems of Abandoned Housing*, Washington, D.C., November 1971; *Urban Decay in St. Louis;* Hugh Nourse and James Little, HUD Grant MOPD-4 (untitled), 1972.

[3] The Center for Community Change and the National Urban League, *The National Survey of Housing Abandonment*, April 1971.

[4] Alan M. Voorhees and Associates, Inc., *Technical Report on a Residential Blight Analysis for St. Louis, Missouri*, Washington, D.C., March 1969.

[5] City of St. Louis, Ordinance 55681, Section 2126.1, approved July 15, 1970.

[6] In January 1972, HUD declared a moratorium on federal funds for demolition. In addition, there was a cutback on Model Cities money that had been used for demolition. The city has now allocated $1,400,000 from revenue-sharing money for continuation of a large-scale demolition effort. Despite removal of much of the oldest housing stock in the city, median rents fell from $66 to $57 and median housing values fell from $12,000 to $11,000 (in 1967 dollars) between 1960 and 1970.

future change. Thus, Rand's research in St. Louis has been structured to answer the following questions:

- *Without major policy changes, which of the following possibilities will most likely occur in the St. Louis metropolitan area over the next ten to twenty years?*

Continuation of past trends. The rates at which people and jobs depart from the city accelerate, and their rates of entry remain sluggish. The city's inventory accumulates but competes poorly with surrounding suburban inventory for either business or residential investment. Selective out-migration causes the city's resident population to become smaller and older, with a growing proportion of disadvantaged persons, many of them blacks. Under these conditions, the city would presumably go into bankruptcy[7] and become something like a ward of the federal government—a jurisdiction incapable of generating locally the revenues with which to manage itself.

Stabilization of current growth potential. As inventory accumulates in the city, it fails to compete with suburban locations for most types of industry. However, the black middle- and lower-income residential population in the city shows growth through natural increase. One of many suburbs, St. Louis retains the usual complement of people-serving industries that prosper as its population increases either in size or affluence.

Reversal of past trends. The city's accumulating inventory exhibits a selective competitive advantage over suburban inventory with respect to industrial development for which central location is a dominant consideration. Economic decline gradually "bottoms out" as past decline creates new conditions—available land, decreasing population densities—that attract new growth. The city again becomes an active hub of economic exchange within the metropolitan area.

- *Within the next ten to twenty years, can specified policy changes at the local, state, or federal level alter the likelihood that one or another of the above possibilities will occur?*

In answering these questions, we have drawn on the conceptual tools and analytic methods of economics, sociology, demography, political science, and statistics. Our diverse research efforts, however, shared a common perception of basic urban processes. We assumed that metropolitan areas represent a set of political boundaries (central cities, counties, smaller municipalities, etc.) normally subject to a more or less continuous procession of people and jobs entering and leaving. Any jurisdiction's population grows as it attracts more migrants than it loses and as it experiences more births than deaths. Its economy grows as its firms expand, productivity increases, and jobs show a net increase.

Although population and employment have been suburbanizing for many decades, these changes have been especially pronounced since World War II. During the 1960s, an unprecedented number of the nation's central cities not only ceased to grow but lost population. Fifteen of the 21 central cities with over half a million residents in 1960 ended up losers, and 6 reported losses of 10 percent or more. The degree of decline in St. Louis may be exceptional, but St. Louis is no exception to the rule.

[7] Bankruptcy means that the city would no longer perform the existing level of services because of an inability to pay bills, meet payrolls, etc. This form of fiscal crisis is discussed in the Advisory Commission on Intergovernmental Relations, *City Financial Emergencies: The Intergovernmental Dimension* (forthcoming).

Rising incomes and falling transportation costs, permitting more people to indulge their taste for detached single-family homes with yards, have been the usual explanations for the decentralization of urban population. Changing technology and falling transportation costs have increasingly allowed industrial decentralization as well. Federal policies have accelerated the trends set in motion by these market forces. National mortgage insurance programs and tax laws encouraged widespread home ownership following World War II, and highway construction programs increased homeowners' access to the suburbs.

The effects of these market forces and federal incentives should be much alike in all metropolitan areas, yet they are not. They vary considerably from one area to another, but why? We understand these different outcomes, despite common influences, to stem from the complex interplay of (a) structural differences in local population composition, industrial mix, governmental makeup, age, topography, and region; and (b) exogenous shocks peculiar to certain areas (e.g., particular types of migration streams, awarding of aerospace and defense contracts in particular areas, and location propensities of major export industries).

For the St. Louis research, we assumed that market forces (rising incomes, falling transportation costs,[8] changing tastes, technological change) have provided the *major* impetus for the observable population and job redistribution from central city to suburb. Further, we have striven to identify the marginal accelerators of urban change more explicitly—the additional forces that have accelerated these national trends operative in the St. Louis metropolitan area.

These factors are particularly important for policymakers to understand, as they promise to be the variables easiest to modify—though perhaps not at the local level. To the extent that the accelerators derive from sources *exogenous* to local jurisdictions, local urban policymakers may have little ability to change them.[9] This is one of the reasons that the conclusions of Rand's urban research in specific cities will be addressed to national as well as local policymakers.

RESEARCH DESIGN

To assess the likelihood of alternative futures for St. Louis, Rand undertook a series of specific research tasks designed to answer the following questions:

- What conditions and policies have accelerated departures from and retarded entry of *people* into St. Louis?
- What conditions and policies have accelerated departures from and retarded entry of *jobs* into St. Louis?
- What is the city's growth potential, given current trends and composition in population and business?

[8] Throughout this report, lowered transportation costs refer to a decline in the *marginal* cost (time and/or dollar) of transportation faced by a firm or household.

[9] For an analysis of this condition in San Jose, see Robert Levine's *San Jose, The Urban Crisis, and the Feds*, The Rand Corporation, P-4839, May 1972.

Selection of Variables

Three sources guided our selection of conditions and policies to explore: the professional literature of the social and policy sciences,[10] findings from Rand's concurrent research in San Jose,[11] and extensive interviews and informal discussion with knowledgeable St. Louis citizens and local officials.

In explaining what conditions have been unique in determining St. Louis's decline, most local observers pointed to the city's aging physical stock[12] and the large migratory influx of rural blacks during the late 1940s and 1950s. Local policies judged to have a unique bearing on St. Louis's decline were those related to the city's fixed boundary and the past conservatism of its banking community. We repeatedly heard about the set of local decisions that, in effect, have frozen the city's boundaries to encompass 61 square miles since 1876, exacerbating the subsequent effect of decentralization as more affluent residents moved farther out. City banks, frequently described as "conservative," were alleged to have made risk capital difficult to acquire locally. We subjected each of these conditions and policies to as thorough an empirical test as we could devise with available data sources.

We applied some gross quantitative measures of the incentives that various real estate tax laws offer to certain types of investment in the St. Louis metropolitan area. We also examined how interstate highways have influenced industrial and residential development by changing travel times from one part of the area to another.

We originally considered a detailed analysis of the structure of the metropolitan economy to be an appropriate complement to the detailed demographic analysis we report. However, initial analysis showed no gross differences between the structure of the St. Louis metropolitan economy (or changes in it) and that of the national economy which might be responsible for the high rate of decline in the central city. An analysis that would go beyond the documentation of structural changes in the economy to an explanation of those changes (i.e., tracing decline in some sector to low investment rates does not *explain* that rate of investment) required more resources than we had available.[13]

Data development for the St. Louis project has been shared by Rand staff and professors at three universities in the St. Louis area: Washington University, St. Louis University, and the University of Missouri, St. Louis.[14] Our university colleagues have been responsible for the development and analysis of primary data sources.[15] In addition, concurrent research funded by the Department of Housing

[10] See Sec. II of Bibliography.

[11] R. A. Levine and D. Alesch, *Growth in San Jose: A Summary Policy Statement,* The Rand Corporation, R-1235-NSF, May 1973.

[12] For example, 74 percent of the city's housing stock was built before 1940. Dempster Holland, St. Louis University, gives a graphic presentation of the relationship between abandonment and those portions of several cities (including St. Louis) urbanized before 1900 in his "Population Change in Seven Midwestern Cities," 1973 (unpublished paper).

[13] The methodological dimensions of the problem are explored in J. Rothenberg, F. Fisher, et al., "A Model of Metropolis," *Papers and Proceedings of the American Economic Review,* Vol. LXII, No. 2, March 1972. See especially the accompanying "Comments."

[14] Those professors who have been Rand consultants during the research period are: Dempster Holland, George Wendel (St. Louis University); Peter Grandstaff, Hugh Nourse, Robert Markland, Donald Phares (University of Missouri, St. Louis); Charles Leven, James Little (Washington University).

[15] In particular, at Rand's request, Dempster Holland and George Wendel did a small survey of industrial developers in the St. Louis SMSA, reported in their *Development of Industrial Parks,* The Rand

and Urban Development[16] has furnished data germane to our research interests. We have also relied heavily on secondary data sources.[17]

Projections of Trends and Current Composition

It is a tricky business to project the future of anything so complex as a city. Simple extrapolations of trends are particularly vulnerable to unforeseen shocks such as technological innovations or new federal policies. And today's linear trend may become exponential tomorrow.[18] For example, the normal filtering of housing in a metropolitan area—the orderly passage of successively lower income groups through the housing stock—may turn disorderly and set off large-scale disinvestment if income distributions between successive groups vary sharply.

In various ways, we have sought to strengthen the projections discussed below with types of data that explain, rather than simply describe, the salient trends. For example, in assessing the future trend in migration away from the city, we rely not merely on descriptive census data but also on survey data that reveal people's intentions and expectations about moving. And in considering the crucial role of the automobile in patterns of metropolitan settlement, we have weighed the possible effect of the rising price of gasoline on automobile use. We cannot foretell every exogenous shock to the metropolitan area, however. While we take a systematic approach to those contingencies we can now identify (e.g., the rising price of gasoline), our projections are firmly anchored in the caveat, "If everything else remains the same. . ."

Corporation, R-1358-NSF (forthcoming). Charles Leven and James Little have received a separate grant from the National Science Foundation to do a survey of movers within selected migration corridors of the SMSA, aimed at developing a model of residential preference, entitled, A Study of Determinants of Inter-Neighborhood Mobility, GI-37861-NSF.

[16] HUD Grant MOPD-4, 1972.

[17] The U.S. Census; Office of Business Economics, U.S. Department of Commerce; interviews carried out as part of the City Plan Commission's survey of residential blight; and vital statistics data furnished by the City's Department of Health.

[18] Or it may change direction as well.

III. RESEARCH FINDINGS

Starting with a model that provides the underlying explanation of population redistribution in all major metropolitan areas, we then examine conditions associated with differential growth rates in central cities. After that, we analyze change in St. Louis from a number of standpoints:

- Demographic, including trends in the city and the suburbs, changing replacement capacity of various components of the city population, implications of demographic trends, and effects of interurban migration.
- Economic, including implications for the city of slow growth in the metropolitan area, changes between the city and the suburbs, and the results of a survey of industrial developers taken specifically for this analysis.
- Racial, involving various tests of the accelerating effects of racial aversions on jurisdictional and neighborhood change.
- Financial and legal, including contributions of current policies that accelerate other trends, especially federal highway and income tax policies; local jurisdictional boundaries; and the effects of local banking conservatism.

MODELS OF URBAN CHANGE

St. Louis is by no means unique among American central cities in showing absolute declines in population and jobs in the 1960s. Two events of the last twenty years—rising incomes and falling transportation costs—have affected central cities in the United States in such a way that all of them should either be growing more slowly than their suburbs or experiencing absolute declines in population and jobs. That is, it can be argued that in concert, the desire to provide and consume public services collectively (because they are cheaper that way) creates powerful incentives for firms and households to locate near one another. But countering factors make for dispersion: land is cheaper away from the central city, and more space is available for modern spread-out, low-rise industrial and commercial operations. Further, cities typically provide a fixed bundle of public services intended to be uniform across neighborhoods. However, varying *demands* for public services are imposed by different subgroups (young families, the aged, higher income people, lower income people). To get the level and mix of public services they want, households must move to or create jurisdictions containing people of similar needs or tastes. Thus, the

heterogeneity of a city's population itself creates incentives for subgroups to disperse and regroup in more homogeneous jurisdictions.

Although cities, under many conditions, maintain a tenuous equilibrium between the opposing forces that impel clustering and dispersion, rising incomes and falling transportation costs have tipped the scales in favor of dispersion to the suburbs.

Within that broad truth, growth rates in central cities still vary. To compare the strength of conditions associated with differential growth, Emmett Keeler and William Rogers devised a simple three-equation structural model of central city change in metropolitan areas of over 250,000 population.[1] The variables used in the model, with their means and standard deviations, are given in Table 2. This model assumes that SMSA total income growth and population growth are jointly determined, and that SMSA population growth together with other exogenous variables determine central city population growth (see Fig. 1). Applied to 124 urban areas, the analysis shows SMSA income and population growth closely linked. It can be seen from the first equation in Table 3 that Congressional power, stronger city governments, and manufacturing have added to SMSA income growth. Natural increase and a good climate independently add to SMSA population growth (second equation). Central city change is mainly related to SMSA population change, but older cities with more old or black citizens lost more population, even with SMSA population change taken into account (third equation).

Applying this model to St. Louis,[2] we found that the *major* phenomena associated with the city's 2 percent annual rate of population decline were the slow growth of the metropolitan area (−0.33%), the city's age (−0.7%), its high percentage of black population in 1960 (−0.3%), a limited-power mayor form of city government (−0.2%), high median age of the population in 1960 (−0.2%), and a high density (−0.2%). *The city's age showed a stronger association with decline than did any of the other variables.* This finding supports other evidence (discussed below in the subsection on racial change) that associates decline with an old housing stock. It should also be noted, however, that the model explained only 60 percent of St. Louis's rate of decline (the actual rate was 2.5 percent a year; the model explained 1.5 percent),[3] so that other factors, not included among the explanatory variables, are also important in St. Louis.

We now turn to other analyses that examine factors included in the models we have just discussed, and additional factors useful in understanding how St. Louis got where it is. We also discuss the implications of these factors for projecting the city's future.

[1] E. Keeler and W. Rogers, *A Classification of Large American Urban Areas*, The Rand Corporation, R-1246-NSF, May 1973. See Appendix D therein for applications of the model to 124 urban areas, 59 urban areas with central cities over 200,000, and St. Louis.

[2] To estimate the effect of different St. Louis characteristics on the city's growth rate, values of the dependent variables for St. Louis were multiplied by the parameters estimated in the regression for 124 urban areas (Table 3).

[3] For some other declining cities—e.g., Pittsburgh, Baltimore, and Newark—the model explained almost all the decline.

Table 2

SELECTED STATISTICS FOR 124 METROPOLITAN AREAS[a]

Variable	Abbreviation	Mean	Standard Deviation
Total income growth[b]	EcGro	0.0709	0.015
SMSA population change[b]	SMSCh	0.0175	0.014
Central city population change[b]	CC Ch	0.0070	0.019
Congressional power[c]	CONG P	0.24	0.45
Type of city government[d]	C GOV	2.60	1.30
Manufacturing ratio[e]	MANUF	0.34	0.08
High school graduates[f]	HSG	0.53	0.05
Age of city[g]	Age C	2.03	0.31
Gini coefficient[h]	Gini	0.341	0.028
Federal employees[i]	FEDEM	0.07	0.03
South (dummy)	SOUTH	0.32	0.47
Birth rate minus death rate, 1968	Nat Inc	0.0089	0.003
Unemployment, 1970[j]	Unemp	0.13	0.018
Climate[k]	Clim	-6.8	9.5
Old in central city, 1960 (decile)	CC Old	4.9	2.5
Density central city (log)	DENSC	3.73	0.26
Black in central city, 1960[f]	Black	0.24	0.12

[a] Data base minus Honolulu, which does not seem to fit into the same pattern. All variables in percents are transformed by variance preserving transformation in the calculations.

[b] Annual rate of growth, 1960-1970.

[c] This variable is 1 if a key Congressman or Senator has city as a base.

[d] Weak mayor = 0, stronger = 1.2, comm. = 3, manager = 4.

[e] Percent of nonagricultural employed.

[f] Percent of population.

[g] Population of city in (1890 + 1910 + 1930)/1960.

[h] A large value for inequality.

[i] Percent of population, 1969.

[j] Percent of work force.

[k] Ten people were asked to rank ten major cities on a scale of 1-5 for desirability of climate. The average ranking was regressed against summer and winter mean noon temperature and annual rainfall.

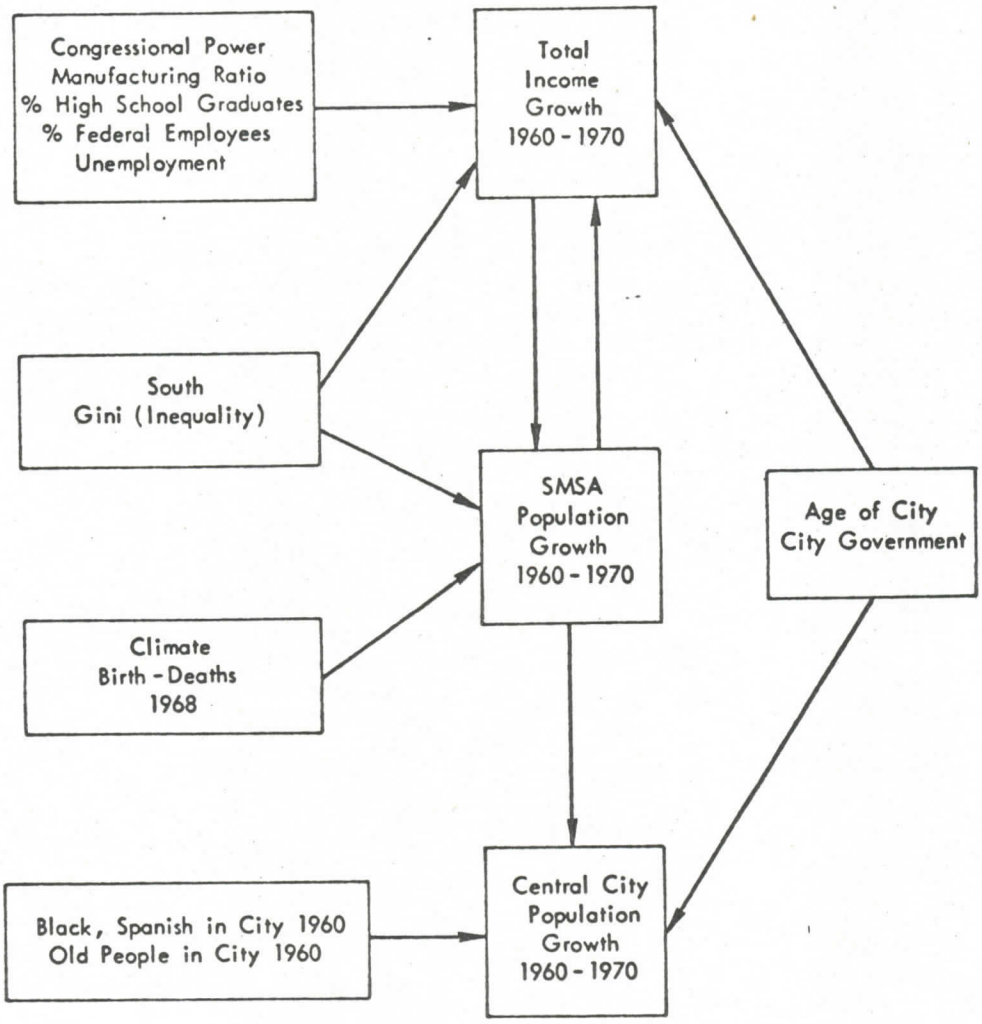


Fig. 1—Model of metropolitan growth

Table 3

A MODEL OF GROWTH AND DECLINE[a]
124 Urban Areas[b]

EcGro = 0.95 SMSCh + 0.0035 CONG P + 0.0015 C GOV + 0.025 MANUF - 0.023 HSG + 0.0072 Age C
(10)[c] (2.9) (3.5) (1.9) (1.4) (2.2)

+ 0.082 Gini + 0.0055 SOUTH + 0.017 FEDEM - 0.039 Unemp + 0.13.
(2.3) (2.8) (0.7) (1.1) (0.6)

Standard error = 0.00565.

SMSCh = 0.93 EcGro - 0.042 Gini - 0.007 SOUTH + 0.37 Nat Inc + 0.0002 Clim - 0.0342.
(11) (+1.2) (3.4) (1.9) (2.25) (2.2)

Standard error = 0.0063.

CC Ch = 0.60 SMSCh - 0.018 Age C - 0.026 Black + 0.001 C GOV - 0.0012 CC Old
(3.9) (2.7) (+2.3) (1.1) (2.3)

+ 0.0084 DENSC + 0.0114.
(1.7) (0.5)

Standard error = 0.0114.

SOURCE: Keeler and Rogers, *A Classification of Large American Urban Areas.*
NOTE: See Table 2 for explanation of the variables, their abbreviations, means, and standard deviations.

[a] Estimated by two-stage least squares.

[b] All but Honolulu.

[c] Values in parentheses are t-ratios.

DEMOGRAPHIC ANALYSIS[4]

The population of metropolitan St. Louis, like that of other metropolitan areas, changes through natural increase (the difference between births and deaths) and through migration. A continual process of redistribution is under way in the area as people move into and out of particular neighborhoods. During the 1960s, dissimilarities between population change in St. Louis and its metropolitan ring became intensified.

Comparative Trends in the City and Metropolitan Ring

St. Louis is a city of 600,000 in a metropolitan area of about 2.4 million people. During the 1960s, St. Louis's population declined 17 percent while its suburban ring

[4] Taken from Peter A. Morrison, *San Jose and St. Louis in the 1960s: A Case Study of Changing Urban Populations,* The Rand Corporation, R-1313-NSF (forthcoming).

population increased 29 percent. The central city decline was acute, compared with that of most cities. Examination of the demographic change components (Table 4) reveals why.

The white population declined mostly because of massive outward migration, chiefly to the suburbs. Between 1960 and 1970, 34 percent of the white city-dwellers moved away. But whites also declined because their death rate steadily approached their birth rate, and since 1965 has exceeded it. Those who remained in the city added only 2 percent to their numbers (nationally, the increase in the white metropolitan population was 11 percent).

It was a different picture for blacks. There was no gain or loss through net migration during the 1960s, but the black population rose 19 percent through natural increase, very close to its national rate of 21.6 percent. Annual population

Table 4

COMPONENTS OF POPULATION CHANGE IN ST. LOUIS, 1960-1970

(Rates per hundred 1960 residents)

Area	Total Change	Natural Increase[a]	Net Migration
Both Races			
St. Louis SMSA	12.3	11.5	0.8
St. Louis City	-17.0	7.3	-24.4
Remainder of SMSA (suburban ring)	28.5	13.8	14.7
Whites			
St. Louis SMSA	9.4	10.1	-0.7
St. Louis City	-31.6	2.4	-34.0
Remainder of SMSA (suburban ring)	26.6	13.3	13.3
Nonwhites[b]			
St. Louis SMSA	28.2	20.2	9.7
St. Louis City	18.6	19.5	-0.4
Remainder of SMSA (suburban ring)	53.8	22.0	37.2

SOURCE: U.S. Bureau of the Census, *Census of Population and Housing: 1970; General Demographic Trends for Metropolitan Areas, 1960 to 1970, Final Report PHC(2)-1*, Tables 10-12; *PHC(2)-27*, Table 3; *PHC(2)-15*, Table 3, Government Printing Office, Washington, D.C., 1971.

[a]Rate of increase attributed to excess of births over deaths.

[b]In this section of the table, "Total Change" applies only to the black population. "Natural Increase" and "Net Migration" apply to the nonwhite population as a whole, but in the St. Louis SMSA, virtually all nonwhites are black.

estimates, however, show the black population in St. Louis to have peaked in 1968 at around 269,000. By 1972, it was estimated to have dropped below 250,000. In view of the black population's positive natural increase, the only explanation is that blacks have been migrating out of the city since at least 1968 (and almost certainly before).

The redistribution of St. Louis's population during the 1960s and early 1970s was marked by a sharp withdrawal of residents from areas adjacent to the original central business district, and racial turnover in an area north of the city's center. To examine these changes in greater detail, Rand developed a model for estimating annually the population of city health districts.[5] (This model will enable city departments to continue to monitor changes in the population's size and racial composition at the health-district scale throughout the 1970s.)[6]

As can be seen from Fig. 2, substantial numerical increases in black population were registered in five health districts north and west of the city's center. In fact, four-fifths of the total citywide increase in black population occurred in this area. Since 1970, however, there has been no appreciable increase of blacks anywhere in St. Louis except in health districts 7 and 9.

In districts where blacks increased substantially during the 1960s, the white population registered sharp declines (Fig. 3)—in some cases falling to less than one-fifth of its 1960 numbers.[7] Since 1970, the white population in health district 23 has stopped declining. In the eight other darkly shaded districts in Fig. 3, however, the white population has declined 15 percent annually from 1970 through 1972. Population in districts on the city's south side declined moderately or slightly during the 1960s and remains almost totally white today.

These hardly random changes in racial location in St. Louis continue to reflect the city's long history of residential segregation. (Until 1962, city newspapers carried separate advertisements for real estate open to blacks and whites.)

Trends in the Suburbs

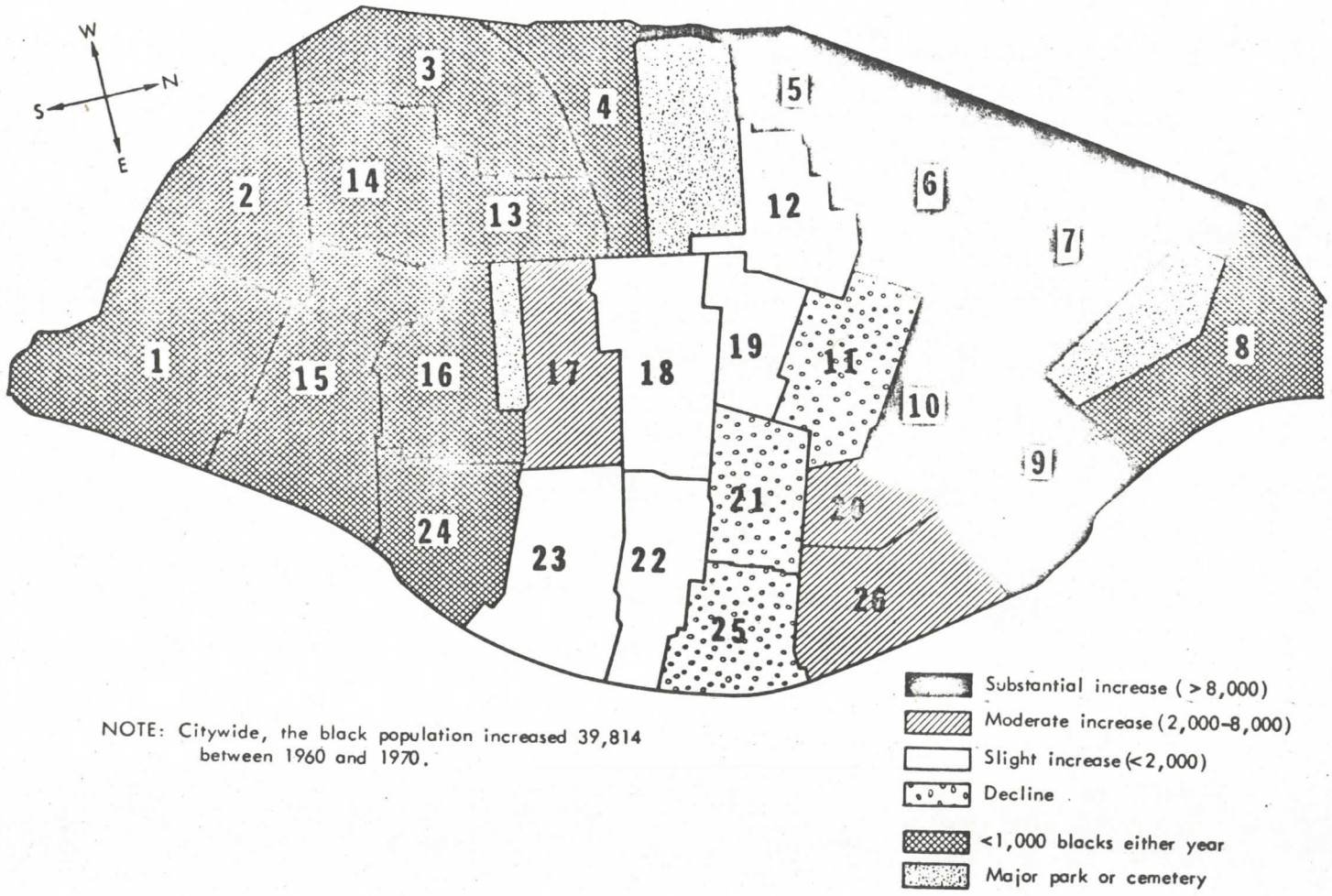
Demographic trends were somewhat more uniform outside the city (Table 4). Natural increase and net migration contributed equally to the white population's 26.6 percent increase during the 1960s. The black population's 53.8 percent suburban growth was attributable more to net migration than to natural increase.[8] St. Louis's suburbs attracted migrants largely from the city but also from outside the metropolitan area. Increasingly, migrants of both races entering the St. Louis SMSA bypassed the city and settled in the suburbs (mainly in St. Louis County). It can be seen in Fig. 4 that the total stream of new arrivals to St. Louis City between 1965 and 1970 was smaller (both absolutely and relatively) than it had been a decade earlier. For blacks, the inbound stream was numerically about the same; but in relative terms, newly arriving blacks increasingly favored the suburbs.

[5] The city is divided into 26 health districts, which range in population from about 10,000 to 50,000.

[6] Peter A. Morrison, *Small-Area Population Estimates for the City of St. Louis, 1960-1972, with a Model for Updating Them*, The Rand Corporation, R-1373-NSF (forthcoming).

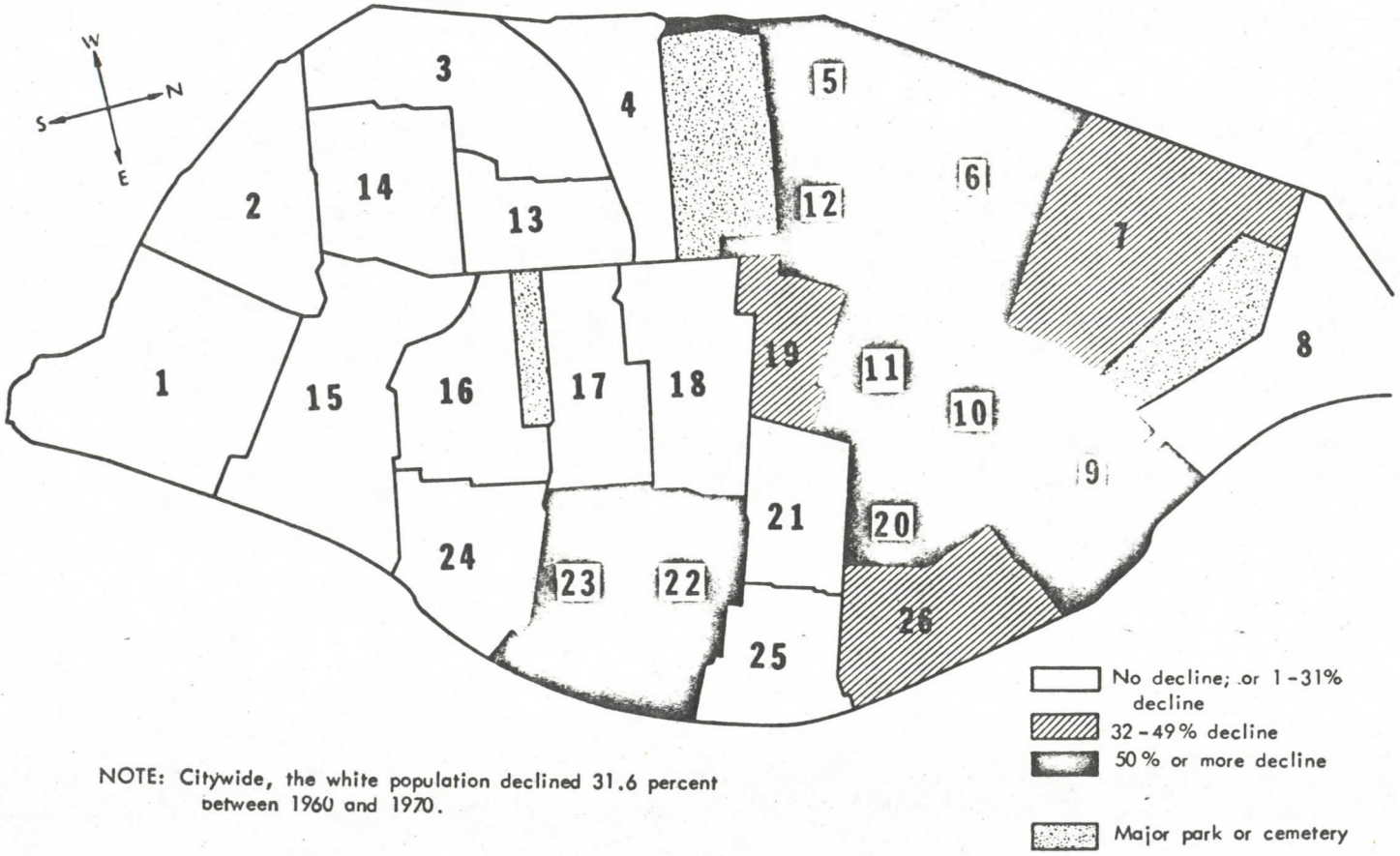
[7] Whereas Fig. 2 shows numerical increases, Fig. 3 shows percentage increases. The two figures are necessarily incompatible: in Fig. 2, there are many instances where the numerical base is very small and growing, whereas in Fig. 3 the base is typically large and shrinking.

[8] Suburban blacks register a high overall rate of growth between 1960 and 1970 because their 1960 population base was miniscule (81,000).



NOTE: Citywide, the black population increased 39,814 between 1960 and 1970.

Fig. 2—Districts gaining and losing black population, St Louis City Health Districts, 1960-1970



NOTE: Citywide, the white population declined 31.6 percent between 1960 and 1970.

Fig. 3—Decline of white population, St. Louis City Health Districts, 1960-1970

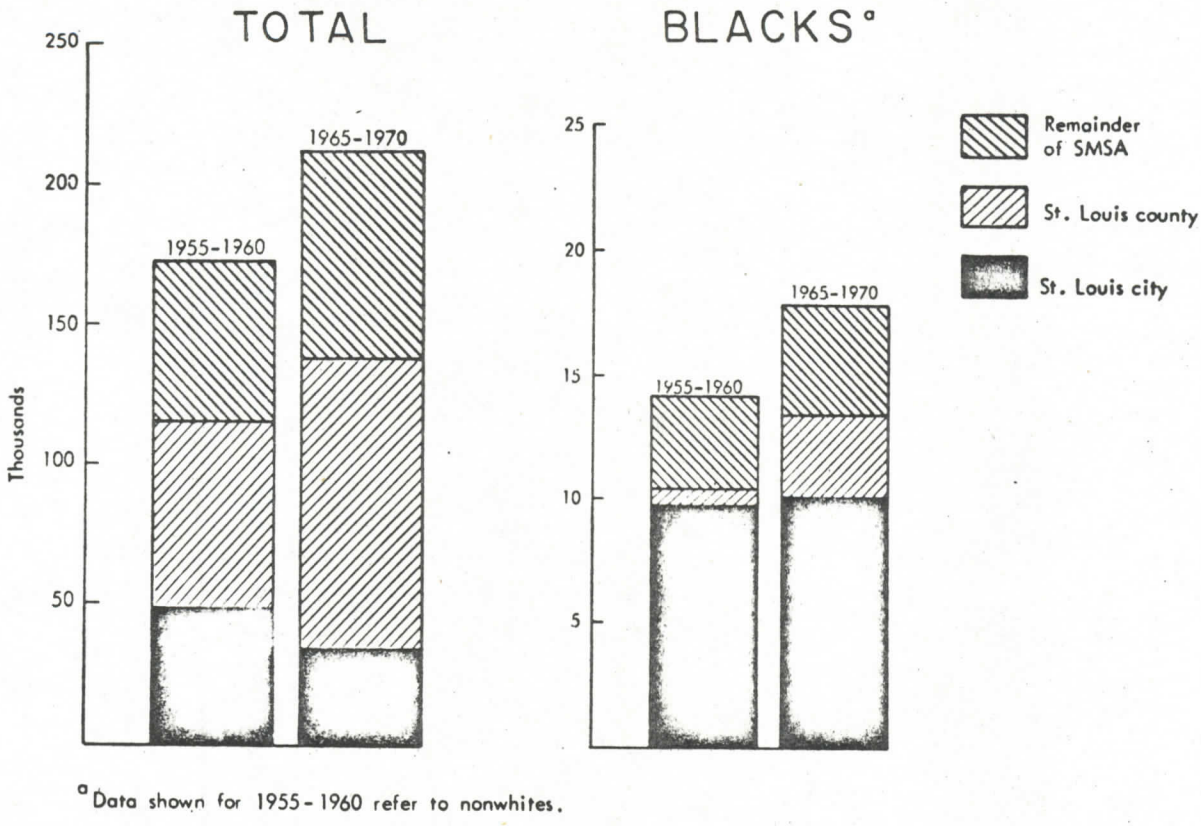


Fig. 4—Destination of migrants entering the St. Louis SMSA, 1955-1960 and 1965-1970 (persons 5 years old and over, residing outside SMSA or abroad five years previously)

Changing Replacement Capacity

The importance of these sharply divergent growth dynamics reaches beyond the mere decline of the city's population to the cumulatively weakening effects of prolonged and severe out-migration. These effects are evident in the white population: heavy and prolonged out-migration has drawn away potential parents and left behind an elderly population that no longer regenerates itself.

The severity of out-migration by young adults can be gauged by following individual age cohorts from 1960 to 1970 (Fig. 5). For example, if there were no net migration, the number of persons 5 to 14 years old in 1960 would appear as persons 15 to 24 years old in 1970, less a small allowance for mortality during the decade. Below age 45, this allowance is minimal (at most 5 percent), so any sizable discrepancy between a young adult cohort in 1960 and 1970 indicates the extent of migration that has taken place. Figure 5 gives stark evidence of extensive out-migration in the early adult years. For example, in 1960 there were 37,900 white females aged 15-24, but by 1970, only 17,900 aged 25-34 remained—a 53 percent reduction. There were 31,100 males aged 25-34 in 1960, but only 15,900 aged 35-44 in 1970—a 49 percent

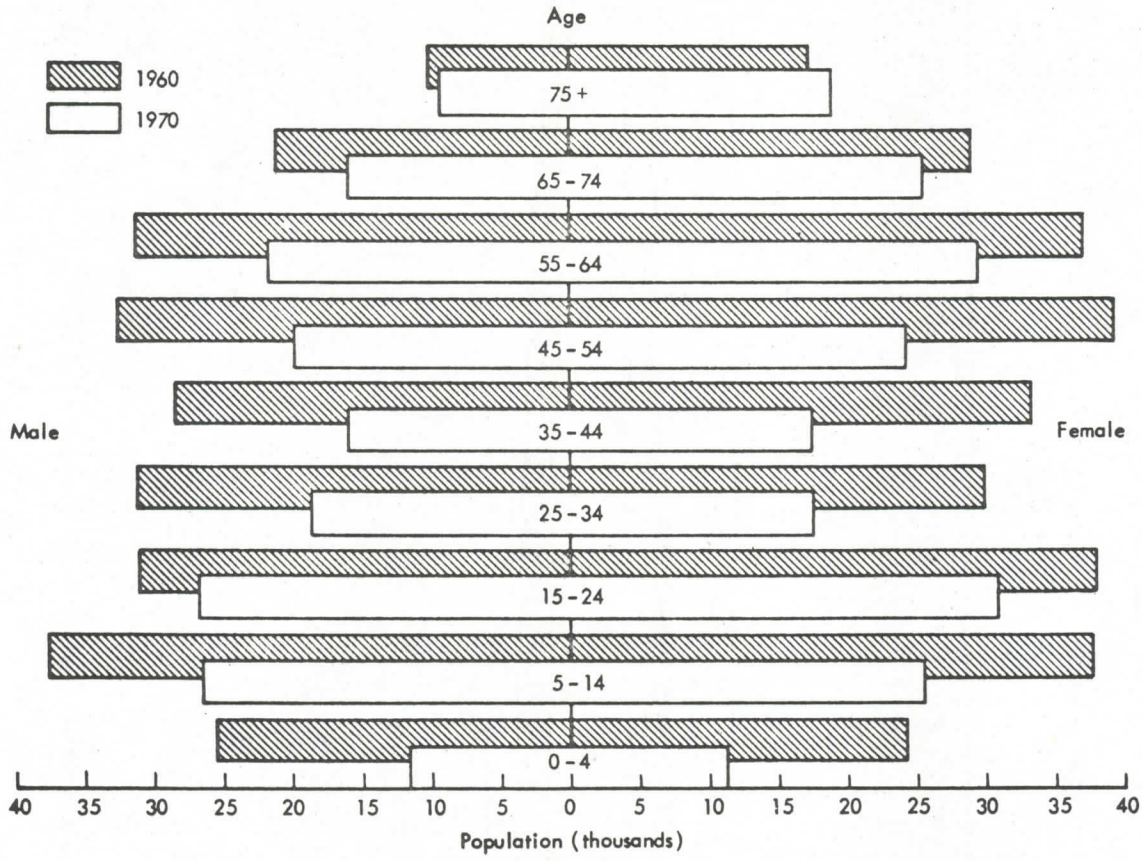


Fig. 5—Age distribution of white population, St. Louis City, 1960 and 1970

reduction. Overall, 46 percent of whites aged 15-34 in 1960 were gone by 1970, leaving St. Louis with a sharply diminished pool of prospective parents.

This diminished replacement capacity is illustrated more directly in Table 5, which shows:

- Women in the middle and later childbearing years have grown more scarce. In 1960 white women 25 to 44 years old made up 22.1 percent of all white women in the city; by 1970 the figure had dropped to 17.6 percent. (Part of this drop stemmed from the changing national age distribution.)[9]
- The proportion of elderly whites has risen. Whites 65 and over made up 14.5 percent of the population in 1960, but 19.2 percent in 1970. (The corresponding figure nationally was 10 percent in both years.)
- Partially as a result of these changes in age structure, the crude birth rate per thousand whites declined from 22.1 in 1960 to 12.0 in 1972; and the crude death rate per thousand whites rose from 14.8 to 18.0. (Part of the decline in the birth rate, of course, was a consequence of the national trend in the birth rate, which dropped nearly 25 percent during the 1960s.)

[9] For white women nationally, this age group declined from 26.4 percent to 23.5 percent of the total population between 1960 and 1970.

Table 5

BLACK AND WHITE REPLACEMENT CAPACITY IN ST. LOUIS, 1960-1972

Indicator	1960	1970	1972
Women in later childbearing years (25-44)			
White	22.1%	17.6%	NA[a]
Black	27.1%	22.7%	NA
Population 65 and over			
White	14.5%	19.2%	NA
Black	6.8%	8.3%	NA
Crude birth rate			
White	22.1	14.5	12.0
Black	34.4	25.1	24.9
Crude death rate			
White	14.8	17.7	18.0
Black	11.4	11.3	11.2

[a]NA = not available.

Since 1965, the white population has ceased to replace itself, its death rate having exceeded its birth rate. By 1972, deaths exceeded births by a margin of 3 to 2. Since it is now undergoing natural decrease, St. Louis's white population will continue to shrink whether or not net out-migration continues. Only a dramatic rise in fertility or a massive influx of young adults can alter this situation.[10]

The city's black population has not undergone severe migratory change and retains its strong replacement capacity: in 1972, its crude birth rate was 24.9 per thousand, but its crude death rate was only 11.2. Nevertheless, the black population began to decline in 1969, indicating a net migratory loss severe enough to offset its natural increase.[11] This recent shift could signify an increase in departing migrants, a reduction in entering migrants, or a combination of both. What weak indications we have favor the first of these explanations.[12]

General statements about an entire city invariably mask specific neighborhood exceptions. This is true of St. Louis, where certain areas are registering growth by attracting new residents. Two important questions are: Where are these new residents coming from—outside the city or other parts of the city? At what rate is the change occurring? If the change is internal, or if new residents are coming from outside, but at a slow rate, then the significance is small.

[10] Because changes in fertility are difficult to forecast, a dramatic rise cannot be entirely ruled out, although it is highly unlikely. Foreseeable changes in mortality have no appreciable bearing on the population's replacement capacity.

[11] Morrison, *Small-Area Population Estimates for the City of St. Louis, 1970-1972, with a Model for Updating Them*, Table 2.

[12] Data shown in Fig. 4 indicate that the gross number of black migrants entering St. Louis between 1965 and 1970 was about the same as between 1955 and 1960—around 10,000. Thus, only an increase in gross out-migration could account for the change in net migration.

These neighborhood exceptions and their broader meaning leave considerable latitude for judgment. One local view we encountered repeatedly was that young white families, disillusioned with suburban living and attracted to inexpensively priced older housing, are beginning to move back to St. Louis. Evidence offered in support of this view is anecdotal: a south-side realtor claims to have more buyers than sellers; a particular parish reports that whereas few new families moved in last year, dozens have done so this year; thousands of people attend a neighborhood festival, and hundreds of would-be newcomers inquire about buying a home there.

The hypothesis that a return to the city has commenced cannot be tested directly until the next census is taken. Nevertheless, some signs of this alleged reversal should appear in our specially prepared population estimates for health districts on the city's south side. These estimates verify that the white population of health districts 1, 3, and 14 has increased since 1970. The increases are small (3, 7, and 5 percent, respectively, between 1970 and 1972). They also are erratic: health district 1 registered an increase only between 1970 and 1971; after 1971 it declined. Health districts 3 and 14 increased only after 1971. We cannot ascertain whether these increases are mainly due to whites moving into the city or to people relocating within the city.

Lacking the requisite data, we can only speculate about whether and to what degree a return movement to the city is in the offing. Population on the south side is virtually all white and advanced in age. In coming years, more and more houses will go on the market as this older population dies off. Some of this housing may well attract buyers from outside the city, creating new growth in some neighborhoods despite declining population citywide.

Nonetheless, from the demographic evidence we have, we can assert that the *overall* decline of St. Louis's population will continue and may well accelerate. We have seen that for whites, the substantial and cumulative loss of city-dwellers has acquired its own dynamic: the elderly now die off faster than the young are born. There is little prospect that this natural decrease will do anything but intensify for two reasons:

First, a substantial proportion of whites are either entering or already within the high-mortality age brackets. The white population's crude death rate therefore will continue to rise.

Second, prospective parents are becoming scarce among St. Louis's whites, and the national evidence that they will choose to have smaller families continues to mount. The white population's crude birth rate is therefore likely to fall, barring a dramatic increase in fertility or a strong and sustained inflow of child-bearing families.

Nor is there much evidence that St. Louis's black population will grow substantially. True, the black population is expanding steadily through natural increase, but black migration out of the city is more than enough to cancel that increase.

Accumulation of Disadvantaged Citizens

As migration has changed the metropolitan-wide distribution of population, St. Louis has lost ground in other respects. Its population has come to be comprised of those citizens who are disadvantaged, as the following comparisons show:

- Between 1960 and 1970, the city's black population rose from 29 percent to 41 percent, but only from 6 percent to 7 percent in the rest of the metropolitan area.
- The city's residents 65 years and older increased from 12 percent of the population to 15 percent; they stayed at 8 percent in the remainder of the metropolitan area.
- For families and unrelated individuals, median income in the city was 79 percent of that for the SMSA in 1959; city income was only 68 percent of SMSA income by 1969.
- The proportion of relatively high-income families declined sharply. In 1959, 11 percent of families in the city had incomes at least double the city's median family income; by 1969 only 4 percent had such incomes.
- The proportion of relatively low-income families rose slightly. In 1959, 16 percent of families in the city had incomes below half the city's median family income; by 1969, 21 percent had such incomes.

Through selective out-migration, problems of dependency and poverty—not exclusively problems *of* St. Louis—have come increasingly to be located *in* St. Louis.

Migration

In this context, it is important to clarify how migration contributes to or alleviates the problems facing St. Louis and its residents. Like other metropolitan areas, St. Louis is linked with urban and rural areas throughout the country by migratory interchange. Among white migrants, this is a broadly connected system, indicative of metropolitan St. Louis's niche in a national system of manpower exchange. The migration of blacks, however, is more of an urbanizing process: incoming migrants enter metropolitan St. Louis mostly from rural origins in such states as Mississippi, Missouri, and Arkansas. Outgoing migrants go to metropolitan destinations, often large centers such as Los Angeles, Kansas City, and Chicago. For many blacks, St. Louis serves as an entry point into urban life.

The city, however, is where most black in-migrants to the metropolitan area settle. An important question here is: How do these incoming migrants fare compared to the St. Louis residents they join? Although we lack the requisite data for exploring this point thoroughly, it is possible to examine the unemployment experience of recent in-migrants after their arrival in St. Louis and compare it with St. Louis residents they join.[13] Data in Table 6 show that among blacks, recent migrants differ little from long-term residents with respect to unemployment at any age. Among whites, recent migrants also have unemployment rates similar to those of long-term residents (except for the 20-24 year age group). There is, however, a sizable difference *between* blacks and whites in every category: blacks are substantially more unemployed than whites.

The effects of migration, then, have to be judged cautiously. In trying to analyze these effects, a major difficulty is that standard social and economic statistics are compiled and organized mostly by areas rather than by groups of people. Conse-

[13] Specifically, we compared the 1969 unemployment experience of recent migrants (defined as persons entering St. Louis between 1965 and 1970) with that of long-term residents (natives and earlier migrants). The source of these data was the 1970 Census Public Use Sample.

Table 6

UNEMPLOYMENT RATES IN ST. LOUIS FOR RECENT MIGRANTS AND LONG-TERM RESIDENTS, 1969

Age and Migration Status, 1970[a]	Percent Unemployed, 1969	
	Whites	Blacks
20-24 years old		
Recent migrants	6	11
Long-term residents	3	10
25 years old and over		
Recent migrants	1.6	3.5
Long-term residents	1.5	3.6

SOURCE: U.S. Bureau of the Census, *1970 Census of Population*, Public Use Sample of Basic Records.

[a]All persons 20 years old and over in the labor force. Recent migrants are persons who moved to St. Louis between 1965 and 1970. Long-term residents are persons who lived in St. Louis in both 1965 and 1970.

quently, we can observe the experience of places, but not of people. These experiences can differ sharply. For instance, black in-migrants from impoverished rural areas in states like Mississippi may be less affluent or employable than the mostly white population they join in St. Louis. If this is true in St. Louis (as it is in other cities), then area indicators (e.g., unemployment or poverty in St. Louis) may register a worsening of local conditions. But measures of individuals' experiences (e.g., their unemployment experience or poverty now, compared with what it was before they came to St. Louis) may show marked improvement.

ECONOMIC CHANGES

Slow Economic Growth in Metropolitan St. Louis

We have seen that economic and population growth are slower in metropolitan St. Louis than in the nation as a whole. To what extent does this slow growth account for the central city's decline? There is certainly reason to believe that faster growth in the metropolitan area would be useful to the central city, but the Keeler and Rogers analysis[14] discussed earlier indicated that slow metropolitan growth is not the variable most strongly associated with central city decline in St. Louis.

Further, the policy implications of stimulating metropolitan growth to gain positive effects for a central city are curious. Built into an "average" metropolitan growth rate for the nation is the fact that some areas fall below, some above that

[14] *A Classification of Large American Urban Areas.*

average. The most obvious way to change relative rankings is for metropolitan areas to compete with one another for jobs and people. While proponents of local growth are accustomed to such competition,[15] there is no compelling rationale for public policy at a higher level to artificially equalize the economic performance of metropolitan areas by redirecting people and jobs toward certain areas and away from others.

Even if a local metropolitan area competes and wins, what are the relative benefits of so doing? In California, San Jose's rapid economic and population expansion produced its own set of problems:[16] affluence increased, but its distribution did not become notably more equitable (Chicanos did not appear to benefit as much as Anglos); certain environmental amenities deteriorated as tract housing developments and freeways destroyed orchards and serene vistas; and while San Jose's residents seem less concerned today with what urban planners regard as the aesthetic outrages of rapid growth, local policymakers were sufficiently skeptical of the benefits of rapid growth to ask Rand whether continuation of such growth was essential to economic well-being. Similar problems beset some of the suburbs of metropolitan St. Louis: traffic congestion, sudden new demands on municipal services, unplanned and inefficient land use are much more characteristic in the growing suburbs than in the central city.

Economic Growth: City Versus Suburbs

Economic decentralization has paralleled the movement of population in metropolitan St. Louis. Between 1960 and 1970, the city's share of SMSA population shrank from 39 to 26 percent. Its share of area jobs declined from 61 to 42 percent.

The figures in Table 7[17] illustrate how sharply the city and suburban economies were diverging during the latter half of the 1960s. In St. Louis, earnings grew only in the government and service sectors; all other sectors declined. In the suburban ring, all sectors registered positive growth. Table 8 shows that within the service sector, city employment grew slower than suburban ring employment; indeed St. Louis lost employment in "hotels" and "personal" services and showed only a miniscule increase in "legal" services and "amusement." These growth rates, combined with declining earnings in industrial and commercial sectors, strongly suggest that the center of economic activity is shifting away from the central city. We estimate that if these trends continue until 1975, St. Louis County will have captured a share of business activity approaching that usually associated with the central city of a metropolitan area (see Table 9).[18]

Survey of Industrial Developers

To supplement the projections based on past aggregate data, Professors D. K. Holland and G. D. Wendel of St. Louis University carried out a survey of eight

[15] Vigorous efforts to recruit business at the regional level are planned by the St. Louis Regional Commerce and Growth Association formed in 1971.

[16] These results are reported fully in Levine and Alesch, *Growth in San Jose.*

[17] Taken from C. Gardner and G. Payne, *An Economic Analysis of Central City Decline,* The Rand Corporation, R-1350-NSF (forthcoming).

[18] Ibid.

Table 7

ANNUAL GROWTH RATES OF EARNINGS BY SECTOR AND INDUSTRY, ST. LOUIS CITY AND SUBURBS, 1966-1970

(In percent)

Sector	St. Louis City	Suburbs
Government	5.3	7.1
Private	-3.1	6.1
Manufacturing	-4.4	3.5
Transportation, communications, utilities	-1.9	9.2
Trade	-5.1	11.7
Finance, insurance, real estate	-2.0	7.1
Services	3.0	7.1
Total	-2.3	6.3

SOURCE: Data provided by Regional Economics Information System, Bureau of Economic Analysis, Office of Business Economics, U.S. Department of Commerce.

Table 8

EMPLOYMENT IN SERVICES, ST. LOUIS CITY AND SUBURBS, 1959 AND 1970

	St. Louis City			Suburbs		
	Number of Jobs Held			Number of Jobs Held		
Service	1959	1970	AGR[a]	1959	1970	AGR
Hotels	5,672	4,687	-1.91	962	3,351	12.48
Personal	7,864	7,025	-1.13	4,039	7,043	5.56
Auto	2,190	2,609	1.75	1,185	2,626	7.96
Repair	1,184	1,690	3.56	705	1,077	4.24
Amusement	2,123	2,177	0.25	2,056	3,611	5.98
Medical	13,299	20,317	4.24	6,030	21,712	12.81
Legal	1,072	1,173	0.90	352	946	9.89
Education	3,177	10,244	11.71	1,134	5,905	16.50
Nonprofit	8,396	10,486	2.22	4,029	8,442	7.40
Miscellaneous business	7,144	14,744	7.27	1,114	6,211	17.18

SOURCE: *County Business Patterns*, U.S. Department of Commerce, 1959 and 1970.

[a]Average growth rate.

Table 9

PERCENTAGE OF SMSA EARNINGS BY SECTOR, ST. LOUIS CITY, ST. LOUIS COUNTY, REMAINING SUBURBAN RING, 1970 AND 1975

Sector	St. Louis City		St. Louis County		Remaining Suburban Ring	
	1970	1975	1970	1975	1970	1975
Total nonfarm	43	33	35	47	22	20
Government	38	36	30	32	32	32
Federal government	50	46	15	25	35	29
Private	44	33	36	50	20	17
Manufacturing	42	33	36	47	22	20
Transportation, communications, utilities	55	41	23	41	22	18
Wholesale and retail	46	27	37	69	17	4
Finance, insurance, real estate	51	39	35	47	14	14
Services	43	33	35	47	22	20

SOURCE: Gardner and Payne, *An Economic Analysis of Central City Decline.*

industrial developers in the St. Louis area.[19] On the whole, industrial developers substantiated the conclusions of other analyses: that industrial dispersion in metropolitan St. Louis had been stimulated by the search for more space and by the construction of interstate highways. At one stroke, these highways made available large, relatively inexpensive tracts of suburban land and lowered transportation costs. The developers also indicated that high crime rates in the city gave added impetus to dispersion.

Interviews with these developers pointed up two objective limitations facing any concerted effort to reverse industrial suburbanization:

- More land is available in the suburbs than in the city. At present, about 1300 acres (not all zoned industrial) are available for development in St. Louis, whereas 4200 acres already *zoned* for industrial use are available for development in St. Louis County. Furthermore, despite widespread abandonment in St. Louis, development remains more expensive there than in the suburbs.[20] Moreover, recent cutbacks in urban renewal funds have virtually eliminated the land write-down feature that formerly made the cost of city land development nearly competitive with suburban land development.
- High crime rates have reduced the attractiveness of the land available for redevelopment in St. Louis. Yet crime rates depend heavily on the income level and

[19] These firms manage 50 percent of the area's industrial parks. A full description of the interview and analysis method used in the study, the sample of developers interviewed, and the full report of interview results are given in Holland and Wendel, *Development of Industrial Parks.*

[20] That is, in general, it remains expensive to buy abandoned property, clear it, and develop it or sell it to developers. Even with subsidized demolition (most of the clearance that has taken place is federally subsidized), the potential redeveloper must take into account the negative effects of surrounding, deteriorating neighborhoods.

age structure of the local population, factors that municipal governments can do little to change.[21]

From the survey of developers, we know that the most attractive land in the city for industrial development is distant from low-income residential neighborhoods and accessible to highways. From the developer's viewpoint, then, *accumulating spatial inventory in the city is a necessary but not sufficient condition for future business investment.*

RACIAL FACTORS

Several data sources we have examined show a strong relationship between the presence of blacks and a rapid exodus of whites *at the neighborhood level* both within St. Louis and in surrounding suburbs. However, the hypothesis that city-wide population decline is largely a matter of "white flight" (i.e., racially motivated departure) was not substantiated. This finding fits with the analysis by Keeler and Rogers,[22] which shows a weaker relationship between race and central city decline than between the city's age and its decline.

Race and Central City Decline: The White Flight Hypothesis

Precipitous neighborhood change may be explained in part by racial transition, but the *aggregate* population decline of the city appears to be a response to other factors. In one attempt to account for the pattern of residential and industrial dispersion evident in the St. Louis metropolitan area, we tested three hypotheses that seemed to be plausible explanations of trends that have left St. Louis City with a population composed increasingly of blacks.[23]

- Industries in which whites are overrepresented have been suburbanizing more than other industries. A high proportion of whites have been choosing to live close to their jobs.
- Other things being equal, nearly everyone prefers suburban residence to city residence. If whites' incomes have been rising more than blacks', a higher proportion of whites will have moved to the suburbs.
- The white population has been leaving the city to escape the black population (the "white flight" hypothesis).

We examined black and white departure rates from the central city adjusted for interracial differences in income and job location within the metropolitan area.[24]

[21] It should be noted, however, that St. Louis is in the first year of a major crime reduction program sponsored by the U.S. Department of Justice.

[22] *A Classification of Large American Urban Areas.*

[23] While any one of the hypotheses *might* account for all of the city's demographic change, they are not mutually exclusive. Indeed, it is unlikely that a single mechanism has been operating.

[24] An index was constructed that allows us to calculate an expected value for the 1960-1970 change in white and nonwhite city residents, allowing for city job losses (gains)—holding income constant. See Gardner and Payne, *An Economic Analysis of Central City Decline,* Appendix A.

There were two findings. First, *within every income bracket for both blacks and whites, fewer people live in St. Louis City than would be expected, given the spatial distribution of jobs.* Second, at only the lowest and highest income levels did whites leave the city at faster rates than their black cohorts. That is, *for most of the income distribution, blacks and whites were leaving the city at the same rate during the 1960s.*

Reasons for Residential Change

A survey conducted by the City Plan Commission in 1967[25] offers clues about why these moves took place. Interviews suggest that people's desire to own a home or enlarge living space is as important as their desire to escape repellent neighborhood conditions in motivating movement within and away from the city. Of respondents who intended to move, both blacks and whites who gave priority to becoming homeowners tended to favor St. Louis County as their destination. For prospective homeowners, then, St. Louis's housing stock is less competitive than housing in the suburbs.[26] On the other hand, respondents who intended to move and who gave priority to enlarged living space tended to designate locations within the city.

Thus, St. Louis's housing stock is competitive mostly as it offers space for rent. Blacks and whites who expected to move, however, were found to designate mutually separate areas of the city. While we hesitate to accept these expressions of intent without question, we note that they are borne out by the actual patterns of white and black movement, to which we now turn our attention.

Analysis of Census Tract Population Changes[27]

During the 1960s, rates of population change varied widely among different sections of St. Louis. Census tracts—small and relatively homogeneous areas into which cities are subdivided—are a useful scale at which to examine these variations. Regression analyses of population changes in St. Louis census tracts from 1960 to 1970 reveal consistent patterns beneath this variability and offer clear indications of the contrary racial trends just noted.

Not surprisingly, the population changes at this small-area scale fit well with the somewhat larger health district scale analysis reported above, showing continuing differentiation of the black and white populations within the city. Blacks exhibit a strong tendency to move into tracts where blacks already reside, rather than disperse evenly throughout the city. (As noted earlier in this section, under the heading "Comparative Trends in the City and Metropolitan Ring," four-fifths of the black population's citywide increase was concentrated in 5 of the city's 26 health districts.) Predominantly white tracts tend to retain white residents if most white households own their homes. White population declines more severely where most whites rent, or where blacks—particularly new arrivals—make up a significant

[25] A reanalysis of selected parts of that survey is reported in Morrison, *San Jose and St. Louis in the 1960s.*

[26] A more detailed analysis of the reasons for residential choices will be available when C. Leven and J. Little publish their model of residential preference. See Sec. II, footnote 15, above.

[27] A full discussion of the data and regression coefficients on which the analysis in this subsection is based is reported in Morrison, *San Jose and St. Louis in the 1960s.*

fraction of residents. Although our regression analysis cannot shed light on causation or underlying motives, it documents the powerful continuities in racial separation in St. Louis. These tendencies reflect a long history of overt racial segregation in housing. Today, however, the behavioral mechanisms at work may also involve income differences that affect the filtering of housing. To investigate this possibility, we examined the dynamics of the housing market.

Neighborhood Level Analysis of the Housing Market[28]

An arbitrage model of household locational decisions can often be used to predict and explain the response of the housing market to changes of race and income in neighborhood household composition. This model assumes that the housing market is segregated by race and income, reflecting people's preference to cluster in homogeneous groups. High-income families who can afford new housing receive discounts if they live in neighborhoods adjacent to low-income families. Low-income families pay premiums to live in neighborhoods adjacent to high-income families and capture their amenities. Equilibrium in the market occurs when the price of housing along the boundary between these two groups is the same for each.

Under these conditions, increased housing demand by poor families can provide an incentive for houses to change from use by high-income families to use by low-income families; as the price of housing goes up for low-income families, the contraction of housing supply for high-income families increases the cost of their housing and provides an incentive to new construction. Racial prejudice would affect the housing market similarly, although two boundaries should develop: one between high-income and middle-income black families, and one between black families and low-income families. In this case, as black families demand more housing and drive the price up, there is an incentive to shift some housing from use by high-income whites to use by middle-income blacks.

Initial evidence based on rental market data for selected city neighborhoods shows the following pattern: vacancies rise as black and low-income family occupancy approaches a particular block. Near the peak of the vacancies, rents begin to decline. Then, once the boundary is passed, vacancies decline and rents rise briefly to their previous level. Finally, rents decline continuously until they reach a floor, at which time the units are removed from the market.

This same pattern has since been found to prevail in suburban neighborhoods. Additional data on the housing market (i.e., data on the owner-occupied as well as the rental housing market) suggest that *middle-income blacks—themselves moving from lower-income black areas—have been the leading edge of suburban neighborhood transition even where their incomes are somewhat higher than those of their*

[28] This analysis has been developed from several different sources. The "arbitrage model" of household locational decisions was first used in *Urban Decay in St. Louis* (Institute for Urban and Regional Studies, Washington University) to describe and explain events in the city's housing market. Comprehensive housing market data to test the model are being developed by Hugh Nourse and James Little under HUD grant MOPD-4. In this latter study, the arbitrage model will be tested in nine neighborhoods located in the city and in suburbs surrounding the city: University City, Wellston, Jennings, Normandy, River View Gardens, Bayden, Walnut Park, The Hill, Lafayette-Soulard. An application of the model to additional data developed for University City in response to Rand's request is reported in James Little, *Housing Market Behavior and Mobility Patterns in a Transitional Neighborhood*, Institute for Urban and Regional Studies, Washington University, St. Louis, June 1973.

new white neighbors. Vacancy rates increase in such neighborhoods, and housing prices deflate over time to the point where less affluent black families can enter the area. White neighborhoods in the path of such movement anticipate transition, showing higher vacancy rates even before black entry—and the process continues.

These latter data support the hypothesis that precipitous neighborhood change is stimulated by racial transition. Even so, it can be argued that white response at the neighborhood level is less a direct flight from the first middle-income black families than a response to expectations that lower-income blacks will follow.

Policy Implications

To repeat, racial aversions do not appear to be strongly associated with St. Louis City's population decline; in fact, at most income levels, blacks and whites have been leaving the city at about the same rate. On the other hand, there is some evidence that racial transition causes precipitous neighborhood change *within* jurisdictions. But whether race, income, or some combination of differences causes people to flee certain neighborhoods and certain jurisdictions, communities of high transition are typically left with lowered income distributions. Local policymakers are then less able to intervene in the transition process, to the extent that public services depend on tax revenues collected from residents.

POLICY ACCELERATORS TO CENTRAL CITY DECLINE

The decline of St. Louis remains most strongly associated with the demographic and economic factors discussed above, factors that local policy can do little to control. Nor can St. Louis easily control federal policies that contribute to decline. However, certain federal *and* local policies not only contribute to decline; they accelerate it. Some of these policies are discussed in this section.

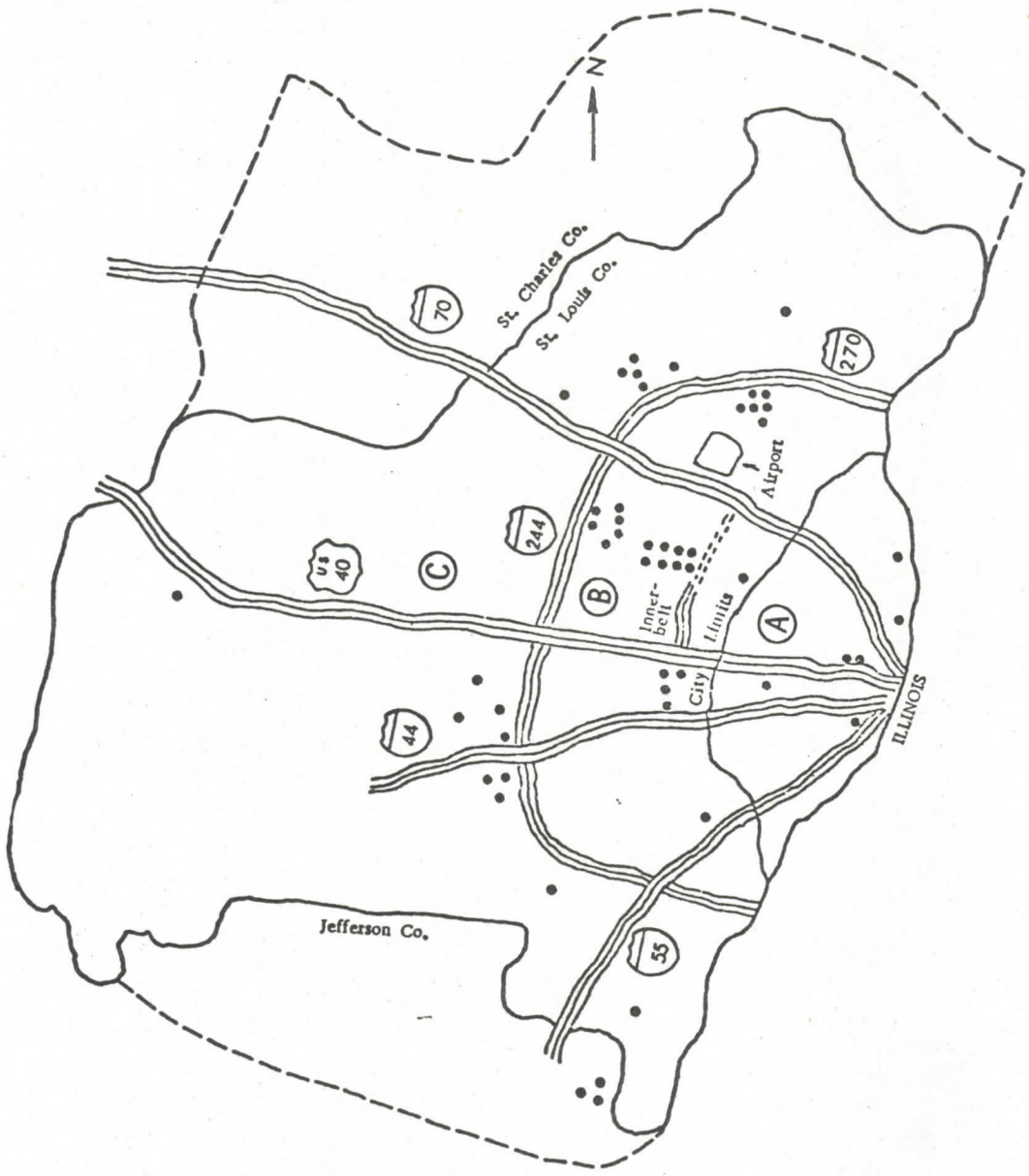
Federal Highway Policy[29]

During the 1960s the federal government supported the construction of five major interstate highways in metropolitan St. Louis (Fig. 6).[30] Total capital expenditures of the interstate system during this period exceeded $250 million dollars, of which the state paid 10 percent.[31]

[29] Calculations in this section are reported in J. Enns and P. deLeon, *The Effect of Highways upon Metropolitan Dispersion: St. Louis,* The Rand Corporation, P-5061, September 1973.

[30] Three of the links in this system (I-70, I-44, and I-55) are radial routes extending west from the Central Business District; the other two links (I-270 and I-244) make up the outer beltway that connects the northern and southern portions of St. Louis County. These routes were completed on the following dates: I-70 (July 1961), I-270 (June 1964), I-55 (July 1967), I-244 (November 1968), and I-44 (December 1972). Two other major arteries also were developed during the 1960s. State Highway 40 (the Daniel Boone Expressway) was substantially improved, while St. Louis County completed a portion of the inner beltway that connects Highway 40 with I-70.

[31] The expenditure data were obtained from U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics,* Table SF-15, annual volumes 1965-1970. The data cover Jefferson, St. Charles, and St. Louis Counties and St. Louis City.



SOURCE: Holland and Wendel, *Development of Industrial Parks*

Fig. 6—Location of major highways and industrial parks in the St. Louis SMSA

Industrial park locations (the dots in Fig. 6) show that this form of industrial development is sensitive to the location of the interstate beltway, a fact borne out by the survey of industrial developers discussed above. To gain a rough numerical picture of how beltways influence land use patterns, we examined residential and employment density changes that occurred between 1965 and 1970 for three rings of the SMSA,[32] designated by the letters A, B, and C in Fig. 6. Ring A is bounded by city limits on the west and includes all traffic zones within the city. Ring B contains all zones in St. Louis County within the outer beltway (I-270, I-244). Ring C includes the remaining zones west of the outer beltway and portions of St. Charles and Jefferson Counties (represented by dashed lines in Fig. 6).

Land use densities in 1965 and 1970, shown in Table 10, reveal several interesting trends. First, population density is roughly three times higher in St. Louis City (Ring A) than in inner St. Louis County (Ring B); but in both areas population density declined from 1965 to 1970. In outer St. Louis County and portions of Jefferson and St. Charles Counties (Ring C), population density increased about a third, but the absolute density of this ring is still far lower than that of the inner two rings. Second, industrial employment density (persons employed per industrial acre) declined in Ring A and increased in both Rings B and C, supporting other observations about the direction of industrial expansion. By contrast, commercial employment density increased slightly in Ring A while falling in Ring B; it rose sharply in Ring C, although from a small initial base. These trends suggest that the urbanization process is continuing well beyond the previous county suburban boundary (represented by the inner beltway).

We also explored the influence of radial highway routes on changing land use for industrial purposes in one portion of the metropolitan area. Our expectation was that areas experiencing large decreases in travel time to St. Louis's Central Business District would display the greatest relative increases in land use density.[33] Our results were mixed. For that portion of the SMSA lying north of State Highway 40, density changes tended to be greatest where travel time changes were smallest—opposite to our expectations. This finding *may* reflect important time lags in the adjustment of urban activities to transportation change. We note that the major northern radial route, I-70, was completed in 1961; thus its impact on changing travel time is not captured by our 1965-1970 data. The changing densities we *do* capture may reflect continuing response to those earlier time changes.[34]

In the southern portion of metropolitan St. Louis, the data confirmed our anticipated effect of travel time change on density. Industrial employment density changes were directly influenced by improved access to the CBD. The estimated

[32] This was the only time span for which appropriate data were available.

[33] To test for the effects of decreasing travel time to the CBD, a simple regression model was used in which absolute changes in industrial employment density formed the dependent variable; the model's explanatory variables consist of absolute change in travel time to the CBD plus some initial density variables to allow for differing levels of land use between regions at the start of the time period. Traffic zone data on population, employment, and CBD travel time for the Missouri portion of the SMSA were obtained for two years (1965 and 1970) from the Missouri State Highway Commission; the observations used to estimate the regression equations were then formed by calculating the changes in density and travel time for each traffic zone. We had 250 observations (traffic zones) available for the regression analysis.

[34] This conclusion is partially supported with regard to industrial employment by an inspection of the pattern of industrial park development that occurred during the 1960-1970 period. Of the 25 parks developed during the decade in North St. Louis County, 13 were opened after 1965. Data on opening dates of industrial parks were obtained from Holland and Wendel, *Development of Industrial Parks.*

Table 10

POPULATION AND EMPLOYMENT DENSITIES IN THE ST. LOUIS SMSA, 1965-1970

Ring	Population Density	Industrial Employment Density	Commercial Employment Density
Ring A			
1965	33.5	12.7	10.5
1970	31.4	12.0	10.8
Ring B			
1965	11.7	3.1	4.7
1970	10.5	3.4	4.2
Ring C			
1965	2.3	0.75	1.3
1970	3.2	1.0	2.4

SOURCE: Traffic zone data obtained from Missouri State Highway Commission.

NOTE: Population density figures refer to persons per residential acre. Employment densities refer to persons employed per industrial or commercial acre.

coefficient for travel time change (the major explanatory variable) was near unity, indicating that for the typical zone, a one-minute decline in CBD travel time is associated with an increase of one industrial job per industrial acre.[35]

No doubt, the size of this coefficient is inflated because our model excludes other important explanatory variables, such as land value. Nevertheless, it is clear that the response of industrial firms to declining transportation costs, as measured by CBD travel-time changes, is significant.

To summarize, both radial highways and beltways have stimulated industrial and population dispersion from St. Louis. If these patterns continue during the remainder of the 1970s, the interstate beltway may be a catalyst for further westward movement of population and employment. Indeed, our survey of industrial developers indicates that this beltway has already sparked a substantial increase of industrial activity in the outer western ring of metropolitan St. Louis.

Federal Real Estate Tax Incentives[36]

Federal real estate tax incentives do not determine the jurisdictional *locations* (e.g., city versus suburb) in which money is invested. But they accelerate dispersion by offering advantages to types of investment that are simply more available in

[35] The data used represented actual employment between 1965 and 1970 (not jobs available). This result is thus affected to some unknown degree by the level of unemployment prevailing in 1965 and 1970.

[36] Material in this section is taken from R. Slitor, "Tax Effects on Urban Growth in Three Cities: San Jose, St. Louis, and Seattle" (unpublished Rand document).

suburbs than in central cities. For example, the benefits to home ownership encourage middle- and upper-income families to purchase new housing which appears mostly in the suburbs. At the same time, laws that do not allow deductibility of capital losses on owner-occupied homes, but that do tax capital gains, hasten disinvestment in central city housing that is comparatively older and more likely to decline in value, and discourage improvements likely to be reflected in capital gains.

In combination, these laws encourage panic selling to avoid loss, and worsen the instability of neighborhoods undergoing racial or income transition; they deter capital improvements, thereby hastening the deterioration of housing stock; and they encourage conversion of homes to rental property for a period before sale, thus accelerating neighborhood change. For metropolitan St. Louis, Richard Slitor has estimated that there is a $67 million annual tax break for home ownership, a $22 million capital gains incentive for real estate speculation, and $13 million in capital gains unrealized at death. These figures represent different sorts of incentives for private actions, not estimates of the market effects of such actions. Thus, they are not additive. Nonetheless, they represent an impressive set of incentives for investment in suburban housing and disinvestment in central city housing.

Other Federal Policies

A number of other contributory federal policies warrant mention in an overall assessment of St. Louis's decline. While we have not carried out specific analyses here, we can offer the following observations based on research by others.

The housing policies of the 1960s had important effects in St. Louis. The Pruitt-Igoe public housing development, built in the 1950s, abandoned during the 1960s, and partially demolished in the 1970s, is well known—a classic example of how federal high-rise, low-amenity, problem-concentrating public housing fails.

Less dramatic but more important than public housing has been the effect of mortgage reinsurance by the FHA and VA, far and away the most powerful federal policy affecting housing in the post-World War II era. To be sure, decentralization of population has stemmed from an overwhelming popular desire for suburban housing; but FHA and VA reinsurance had two important contributory effects. First, it enabled people to buy suburban housing with no down payment and at low interest rates. Second, it created a national mortgage market. Both of these effects accelerated the outward movement of families. Moreover, in the case of St. Louis, the FHA has often refused insurance on inner-city mortgages, making it even less likely that private owners would maintain the existing housing stock. More recently, the Department of Housing and Urban Development has sharply curtailed urban renewal funds, thereby removing the land write-down feature—the only remaining factor that could make city land development nearly competitive with suburban land development.

Housing is by no means the only realm in which the powerful side effects of federal policy have hastened St. Louis's decline. Earlier we pointed out that one reason for differential decline is the ample availability of cheap agricultural land that can readily be developed for industrial or residential uses. Although partly a result of St. Louis's natural geography, suburbanization may be substantially accelerated by federal flood control policy under the Corps of Engineers, which continues to create more land.

A number of federal policies, then, have contributed to St. Louis's decline. Other possible policies, such as revenue-sharing and income maintenance, might have helped to slow this decline or soften its effects on people, but such policies have not been in force.

Local Policies

Jurisdictional Boundaries. St. Louis is one of the five geographically smallest cities in the United States with over half a million population.[37] At the peak of its twentieth-century population, more than 880,000 residents lived within its 61 square miles. Although there are fewer than 600,000 residents today, St. Louis retains a high density of land use.[38] Indeed, our survey of industrial developers shows them in unanimous agreement that the *desire for additional space* has been an overwhelming (though not exclusive) motivation for business departures from the city.

Some local analysts contend that sharp decline registered in St. Louis's population is, to a degree, a statistical artifact arising out of the political decisions that have kept city boundaries fixed for so long. According to this view, the corporate entity called "St. Louis" is more artificially defined than most other central cities, the result being to render it an exaggerated example of the typical older U.S. city.[39]

To measure the effect of this size restriction more exactly, we calculated how far St. Louis boundaries would have to extend for its decline in 1960-1970 population to equal the *average* population decline for comparable U.S. cities.[40] We found that *city boundaries would have to extend about six miles farther west, taking in two-thirds of St. Louis County's population and about one-third of the county's land area* (see Fig. 7). Of course, it is possible to extend city boundaries far enough to create a jurisdiction that shows no population or job loss between 1960 and 1970. In that case, what we call the city would become a larger jurisdiction's concentration of low-income population. It is *not* clear, however, that the jurisdiction we might create this way would have developed in the same way had such annexation actually occurred.

Though we cannot argue that restricted boundaries have accelerated St. Louis's decline, they have distributed the *consequences* of decline to the city's disadvantage. Reduced revenues, coupled with the necessity of maintaining an older physical stock and the necessity of providing services to a growing proportion of aged and poor, engender problems that are less and less capable of solution from within those political boundaries.

Conservative Banking Community. People we spoke with often mentioned the conservatism of the city's banking community as a barrier to new growth in St. Louis. Using recently developed techniques of portfolio analysis, we tested this

[37] The others are Boston, San Francisco, Pittsburgh, and Washington (we exclude the individual boroughs of New York from this comparison).

[38] See Table 10.

[39] Dempster Holland's unpublished paper illustrates, for several older cities, the strong relationship between the proportion of the city urbanized before 1900 and the proportion of the city with the highest rates of abandonment. Of the cities compared (Cincinnati, Chicago, Pittsburgh, Columbus, Detroit, Cleveland, St. Louis), St. Louis had the largest portion of its land area urbanized before 1900.

[40] The calculation appears in Morrison, *San Jose and St. Louis in the 1960s.*

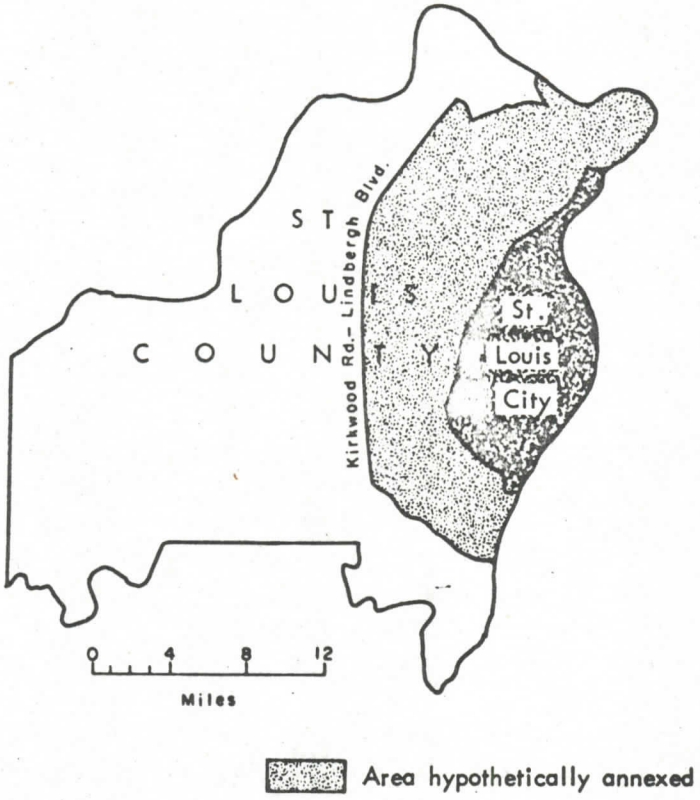


Fig. 7—Hypothetically different St. Louis City boundaries

belief.[41] The approach used was suggested by the method of the Capital Asset Pricing Model, developed by William Sharpe[42] and others.

Applying this model to the four largest banks in St. Louis City—The First National Bank, Bank of St. Louis, Boatmen's National Bank, Mercantile Trust—we found conventional wisdom to be true. These banks *are* conservative when compared with the rest of the nation's big-city banks. And between 1940 and 1970, the banks showed increasing conservativeness. But what is the import of this for urban growth?

It can be argued theoretically that in cities where banks finance higher-risk, higher-payoff investments, the wealth of the population will grow faster than in cities where banks maintain lower-risk preferences. The regulation of entry into banking reduces the probability that the full spectrum of risk preferences will develop among banks, a phenomenon that can be expected to develop in an open competitive market. Unit-rule banking, a very strict form of entry regulation, may tend over time to reinforce any disequilibrium of risk preferences (e.g., where all

[41] A discussion of this test appears in Cyrus J. Gardner, *Banking Regulation and Urban Growth*, The Rand Corporation, P-5057, August 1973.

[42] William Sharpe, "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk," *Journal of Finance*, Vol. 19, No. 3, September 1964, p. 425.

banks in a community are conservative or all have high-risk preferences) by retarding the entry of new banks into a community.[43]

While we cannot estimate the quantitative effect of a conservative banking community on economic growth in St. Louis City, we can argue with confidence that it has not helped the city's economic viability.

[43] Unit-rule banking involves a state regulation that forbids the formation of branch banks. Both Missouri and Illinois have unit-rule banking. For an empirical study showing that creation of new banks is retarded more under unit-rule banking regulations than under regulations that allow branch banking, see R. Pakonen, "The Differential Effect of Branch Law Regulation on Commercial Bank Entry," Ph.D. dissertation, Washington State University, Pullman, Washington, 1971.

IV. ALTERNATIVE STRATEGIES FOR THE FUTURE

ALTERNATIVE FUTURES FOR ST. LOUIS CITY

Because St. Louis has already undergone major economic and population decline, it is possible that the attendant accumulating inventory may initiate new conditions in the city that will gradually mitigate or even reverse the downward trends of the past. Theoretically, any urban jurisdiction can "bottom out," as large blocks of inexpensive empty land stimulate new forms of investment.

Today, of course, St. Louis is far from emptied out. It still contains some 600,000 residents and 40 percent of the SMSA's business activity. However, its population is on a course that cannot easily change: the white population will not cease declining without net in-migration, and the black population will not continue growing unless out-migration ceases. If industrial location trends during the latter half of the 1960s continue for another five years, the city will be only one other center of business activity, as opposed to the chief center. St. Louis County will contain more economic activity than the city. Public revenues have become progressively more difficult to generate locally: receipts from the earnings tax are falling in real terms; the statutory limit on the property tax rate has been reached; and assessed valuation is not increasing faster than inflation. In both 1971 and 1972, sales tax receipts were disappointingly less than had been expected.[1]

Current and Future Inventory

Nevertheless, the city now has approximately 1300 acres available for development. This figure could rise to 2200 by the year 1990, if current trends in land clearance continue (through continuing population and business dispersion, along with the present rate of building demolition). We can arrive at a rough estimate of what new investment in these areas might mean for the city as follows:[2]

If almost 60 percent of the available land is allocated to industrial-commercial use and the remainder to streets, alleys, and residential uses, then about 1300 acres will be available for industrial-commercial development by 1990. Translating this acreage into jobs—67 percent allotted to industrial and 33 percent to commercial

[1] *Annual Report of Comptroller*, City of St. Louis, 1971, and conversation with Mayor John Poelker, June 22, 1972.

[2] These estimates were made by Dempster Holland of St. Louis University and appear in Holland and Wendel, *Development of Industrial Parks*.

jobs, as is now the case—and then allocating 26 employees to each industrial acre and 85 employees to each commercial acre (using 1971 statistics), some 56,000 jobs could be developed by 1990. Next, since the earnings tax is one of the most significant sources of current city revenues,[3] we estimate average salaries for the jobs to be developed[4] and the consequent earnings tax: by 1980, approximately $3 million, and by 1990 an additional $4.5 million, might be generated in city earnings tax.

These obviously crude estimates indicate possibilities, not probabilities; they do not represent net increases; they assume short temporal lags between abandonment and reinvestment; nor are they consistent with the results of our survey of industrial developers. If those results are indicative of a solid frame of mind on the part of the private interests making the relevant decisions, the simple availability of land in the city will not suffice.

Federal Decisions

Before we turn to specific local policy efforts to induce redevelopment, it is important to mention three pending decisions. Each will be made primarily at the federal level, and any one of them could reduce the effectiveness of local attempts to bring economic activity and residences back to the city. They are:

(1) *The development of bottomland.* About 5000 additional acres could become available for industrial development in St. Louis County alone with construction of the Meramec Basin Dam by the Army Corps of Engineers.

(2) *A projected interstate highway link from Kansas City to Chicago.* This highway will cut two hours and over 100 miles from the present route through St. Louis. Many argue that the new highway will hurt both the trucking and tourism industries in the St. Louis metropolitan area, and particularly in the city.

(3) *A new airport site.* The development of a new airport to the southwest of the city, in addition to Lambert Field on the northwest, would further act to draw new industrial development away from the city limits. (This is not to imply the converse—that an airport located to the east in Illinois would draw business back into the city.) However, any new attraction for development west of the city is likely to hurt, with more western development reinforcing a strong existing tendency.[5]

Local Policies: Redevelopment Possibilities

Meanwhile, the St. Louis City Plan Commission has just published a new 15-year development program[6] intended to reestablish the city as a viable working and

[3] The city levies a 1-percent tax on salaries of residents wherever they work and employees wherever they live, which accounts for approximately one-third of city revenues.

[4] Jobs were broken down by industrial classification and average salary for 1970 (according to current percentages in industrial categories). Average salaries for 1980 and 1990 were then computed, assuming a 5-percent increase compounded annually, using current wage guidelines.

[5] The current dispute about airport location, involving expansion of Lambert Field versus construction of a new airport in Illinois, is less clear-cut. Lambert exists, and much of what may be attracted to a major airport site has already been attracted. However, Missouri locations to the west and southwest of the city were suggested several years ago, and could be revived as candidates for new airport location.

[6] *St. Louis Development Program (A Summary)*, St. Louis City Plan Commission, January 1973.

residential community. Although emphasizing physical development, particularly of residential neighborhoods, the program also focuses on controlling crime, improving educational opportunity, and restructuring some parts of city government. The plan envisions differential treatment of neighborhoods aimed at retaining the stability of neighborhoods that are presently sound, rehabilitating other neighborhoods, and continuing demolition in still others.

For the short-range phase of the development program that stresses residential betterment, estimated financial requirements are $154 million. The program recommends, in addition, a four-year public improvement effort involving: $6 million for demolition; $7.2 million for waste disposal and pollution abatement; $29 million for facilities to encourage economic development; $68 million for transportation improvements; $16 million for major recreational facilities; and $40 million for educational facilities. Accomplishment of the long-range (15-year) plan is estimated to require close to $1.5 billion.[7]

In addition to urban redevelopment carried out by the St. Louis Land Clearance for Redevelopment Agency (both federally assisted and nonfederally assisted), three policies are being used in concert to enhance the prospects for private investment in the city:

(1) *The Missouri Urban Redevelopment Corporation Law,* which provides the power of eminent domain to corporations planning expansion or redevelopment. This allows more efficient accumulation of land and is accompanied by a 25-year schedule of tax abatement.

(2) *Planned Industrial Expansion,* which allows industrial revenue bonds to be used for industrial development.

(3) *The Land Reutilization Act,* which permits the city to foreclose on tax-delinquent property, thereby enabling the city to accumulate property for purposes of restoration or rezoning for new uses.

Recent private investment has been substantial, according to the Plan Commission. For example, they point out that the Mercantile Trust Company announced plans this year for a $150-million Mercantile Center. The Boatmen's National Bank has announced plans for a $23-million project. Design of a $25-million public Convention Center is nearing completion. Official approval is near for a $75-million Convention Center Plaza private redevelopment effort. Construction has begun on an $8-million addition to Stouffers Inn. Breckenridge Hotels Corporation has requested approval for a $10-million hotel development over the vacant Spanish Pavilion. General American Life Insurance Corporation has announced plans to build a new headquarters at an estimated cost of $10 million. A Florida developer has announced plans to renovate the city's old Post Office building, and other plans are in progress.

Further, local officials see great promise in a new consciousness of neighborhood identity among many of its residents, and a renewed interest in city dwelling among young families. In the last five years, neighborhood corporations have burgeoned, and neighborhood festivals—drawing from 10,000 to 50,000 people—have been tak-

[7] Ibid., pp. 33-36.

ing place in increasing number. These festivals consciously promote the amenities of in-city living, and encourage potential homebuyers to sign up to be contacted when housing comes on the market. According to some estimates, between 2000 and 4000 young families have been attracted to city residence since 1970, either recruited by conscious neighborhood effort or drawn by their own tastes for city residence.

The Probabilities

No one can deny that local policy has taken an active and vigorous posture toward reviving city life. But there are major uncertainties as to whether the underlying causes of the urban crisis in St. Louis can be effectively changed or reversed by measures envisioned in the new plan:

Will the current revival of private investment in the city continue?

Will middle-income families and businesses be attracted back to the city in significant numbers by these measures alone?

Will they manage to generate sufficient revenues to support municipal goods and services, despite having to share these revenues with the city's disadvantaged population?

Our analysis makes us doubt that the present policies alone can sufficiently attract new investment to the central city. The city is capturing a dwindling fraction of the new industrial and commercial development occurring in metropolitan St. Louis. In 1968, approximately 56 percent of new investment in projects involving $100,000 or more was in the city. In 1970, the figure was only 23 percent; and in 1972, 11 percent.[8] Although investors are betting that the scheduled new office space will be filled, their bets are cautiously hedged. Thus, the Mercantile Center development is staged over a decade. It will begin with a $25-million building to house existing bank facilities, requiring that only 50 percent of the space be leased on the open market. Subsequent buildings—a luxury hotel and three more office buildings—will be developed sequentially. As first steps are justified by new demand, next steps can be taken. And caution is not unwarranted: in the city, utilization of general office space remained at 9 million square feet from 1955 to 1971, in spite of net additions to supply of office space of over 2 million square feet.[9]

The city's power to hold current private economic investment and to attract still further investment is somewhat compromised by the frequent requirement of federal resources to force down the price of land. This necessity makes the city's future economic development quite vulnerable to changing federal decisions (freezing HUD funds, changing urban renewal policies). Indeed, one major company in the city has been working with local and federal resources for five years to develop 44 acres of surrounding land; they estimate that achievement of the development will take at least another seven years. Thus, while city locations *can* be made attractive for certain types of private investment, the encumbrances of so doing assure that suburban locations will remain strongly competitive in the foreseeable future.

[8] Figures as listed in various issues of *St. Louis Commerce*. These figures do not include construction by churches, schools, housing developments, and government. Also, they exclude listed investments where no dollar value was shown or where locations were not specifically designated as being in or not in the city of St. Louis (e.g., "ten restaurants, various locations," or "Mississippi River Transmission Corporation—pipeline expansion").

[9] Institute for Urban and Regional Studies, *Urban Decay in St. Louis*, p. 35.

Another argument sometimes made is that fuel shortages will reduce the rate of metropolitan decentralization, inducing higher densities of population and business which will be more acceptable to the smaller families anticipated in the next two decades. But transportation research in progress at Rand indicates that the price of gasoline will have to triple to induce a 9-percent decline in vehicle miles traveled. In addition, income elasticities are shown to be high for both automobiles and gasoline, suggesting that as incomes rise, the purchase and use of automobiles will increase as well.

Even if decentralization is slowed, the city cannot expect to be sole beneficiary of these trends. Under conditions that reduce decentralization, *every* jurisdiction in a metropolitan area might expect to house a larger proportion of its labor force, as some communities attract more employers of their residents, while others attract as residents those who also work within their boundaries. Already, in the fifteen largest U.S. metropolitan areas, an average of 72 percent of workers both live and work in the suburbs. (St. Louis is close to the average with 70 percent.) And in nine of those fifteen metropolitan areas, suburbs have equaled or far exceeded their central cities as the principal location of jobs.[10]

Our conclusion is that no current policy available to the city can induce the rate of private investment that would return the city to a position of economic dominance in the metropolitan area. Nor does St. Louis appear to be moving in the direction of becoming a predominantly black, self-supporting suburb.

Rather, what is happening now is that the major causes of the urban crisis are stimulated and accelerated by conditions and policies beyond the reach of local policy; local policy is left mainly to ameliorate their consequences—and left with reduced sources of revenue to do even that. This position forces local policymakers to devise short-term solutions, because they simply cannot finance long-term solutions. Yet, paradoxically, the short-term solutions *can* worsen the longer-term problems.

St. Louis City's earnings tax is a case in point. *In the short term,* it captures as much revenue as possible in an equitable way. The city cannot afford to eliminate this revenue source until a very different municipal financing system is in place. Nevertheless, *in the longer view,* the earnings tax falls most heavily on the use of land in business districts and can be escaped by removing the activity. It falls most heavily on residents who work outside the community and can escape the tax by leaving the city. It creates a systematic incentive to live and work outside the city. To be sure, the lower property values that may induce new residential and industrial investment in the city can be traded off against the earnings tax. But as property values rise with stimulated investment, the trade-off becomes less advantageous for later investors, enhancing once again the competitiveness of suburban locations.

LIVING WITH THE FUTURE

St. Louis does appear to have the opportunity to *reduce the rate of its decline, but even this reduction requires new sources of revenue outside its own jurisdiction.*

[10] *The New York Times,* October 15, 1972.

Since the legislation to achieve that is clearly long-term, the city remains locked in short-term strategies as described above. In our opinion, these strategies must continue to be developed in the understanding that for the most part the *historical* functions of central cities are technologically obsolete today.[11] Clustering of people and of economic activity is no longer paramount to the degree it once was. St. Louis's age and location within an outwardly sprawling urban region render it increasingly just "another part of town." Making the best of what it has to offer means catering more deliberately to the diversity of interests that lie within its boundaries. How might this be done?

Our proposal is to engage in jurisdictional or administrative changes designed to enable groups of common interests, tastes, and needs (e.g., neighborhoods) to define and receive public goods and services tailored to those needs. Certain plans of local policymakers are already aimed in this direction: the current city development program proposes different strategies of intervention, depending primarily on housing conditions in different neighborhoods. *The full development of this strategy, however, is dependent on a mechanism for generating revenues that will allow low-income residents to live where they want to, without requiring the jurisdictions they choose to depend predominantly on internal sources of financing.*

We have already noted in Sec. III that with rising incomes and diminishing transportation costs, people disperse and regroup into homogeneous jurisdictions where public services tailored to their particular desires and needs are provided. The larger and more heterogeneous a taxing and service-delivering jurisdiction, the more likely it will be that current forms of municipal financing and allocation of public goods[12] will return a lower proportion of the tax dollar to relatively affluent citizens than to the less affluent in the form of goods especially tailored to their own needs and tastes. To be sure, less affluent citizens might choose municipal expenditure patterns quite different from those selected by wealthier citizens, and in that sense public goods directed to the needs of disadvantaged groups provide less acceptable returns on their tax dollars as well. However, since the total revenue available from wealthier citizens is greater than that available from poorer citizens, the latter receive greater benefits from the affluent than they could support out of their own resources.

Thus, the more affluent have strong incentives to support their desired services in separate smaller jurisdictions—much stronger than the incentives of the poor to isolate themselves from more affluent neighbors. And rising incomes and diminishing transportation costs increase the ability of more affluent city residents to form new, more homogeneous jurisdictions—i.e., to suburbanize.

According to this argument, St. Louis City would not be the only municipality in the metropolitan area subject to departures of the better-off. And indeed, the population of University City (a ring suburb) declined by 10 percent between 1960 and 1970;[13] and median income fell, though in no sense is University City a low-income community, even now. In this smaller community, where jurisdictional

[11] This may not be true of all those functions in all cities. Finance and communications may continue to cluster in New York to a substantial degree. But our point is illustrated by the very different type of sprawling central city represented by San Jose.

[12] Including public services such as police, fire, sanitation, library facilities, and schools, as well as public streets, parks, hospitals, auditoriums, etc.

[13] Brentwood is down 12 percent; Wellston is down 11 percent.

boundaries can be escaped by even shorter moves, there is some evidence to suggest that racial as well as income transition accelerates movement from jurisdiction to jurisdiction.[14] On the basis of this understanding of urban processes, we would argue that *until some form of revenue-sharing—federal, state, or metropolitan—makes the poor a smaller financial burden for any single jurisdiction, rising incomes will continue to encourage the more affluent to flee and their amenities will encourage the less affluent to pursue them.* And if whites cannot tolerate sharing the same bundle of public services with blacks, movement from jurisdiction to jurisdiction within the metropolitan area will be further accelerated.

We suggest widening the jurisdictional boundaries at which revenues are collected. Federal revenue-sharing is an example of what we mean, though presently it is neither substantial enough nor is it perceived as permanent enough to represent a tenable solution to municipal financing problems. True, other levels of revenue-sharing are feasible for some areas—metropolitan or state revenue-sharing. However, for the St. Louis metropolitan area, past voting records suggest that metropolitan revenue-sharing has little likelihood of acceptance. Perhaps changes in suburbs like University City will make possible a metropolitan coalition; perhaps the federal government will come up with an effective incentive program for metropolitanization (but we would not recommend such a program on the basis of this single study). In any case, most metropolitan solutions for greater St. Louis seem out of current reach.

If, however, ways were presented to make municipal financing less dependent on the ability of current residents to pay, municipal governments would be more free to experiment with different modes of service provision. At least some goods and services might best be ordered and provided at very narrow jurisdictional levels, e.g., neighborhoods. In this way, cities with heterogeneous populations might capture some of the benefits of small homogeneous (and affluent) suburban municipalities where residents can purchase and control the public goods and services they want.

STRATEGIES FOR LOCAL POLICY

Our analysis of St. Louis has discouraged us from emphasizing local policy changes. In many ways, the city is already handling its inventory in ways our analysis would suggest: subjecting hung-up inventory to demolition; accumulating contiguous parcels of land in a land bank; discouraging small scattered developments where empty land has promise of accumulating; attempting to reduce the price of city land. We have opinions about the consequences of certain local policy issues that have been informed by our research:

- Branch banking would appear to promise more beneficial than negative consequences for growth throughout the metropolitan area.
- Proposed Missouri sites for a new airport will reinforce the already strong westward development in the area.

[14] This initial evidence comes from early findings by Charles Leven and James Little, as reported in Little, *Housing Market Behavior and Mobility Patterns in a Transitional Neighborhood.*

- Continuing development of bottom land in the metropolitan area will provide substantial new suburban inventory with which city sites must compete.
- The proposed interstate highway connecting Kansas City to Chicago may hurt such industries as tourism and trucking in the metropolitan area and especially in the city.

Local policies may have beneficial effects, but the most significant steps for ameliorating the city's decline rest on policies that must be developed outside its jurisdiction at either the state or federal level. Yet recommendations to state or federal officials for major changes in urban policy must necessarily be tentative when derived from the analysis of one city. Thus, rather than make recommendations, we present examples of policies that could make the poor a smaller financial burden for any single jurisdiction:

- At the federal level, this calls for a much more substantial revenue-sharing program that takes into account the large proportion of public goods (streets, hospitals, parks), as well as services that cities currently support. Formulas for distributing revenues should provide higher than current returns for proportions of low-income citizens.
- At the state level, a more limited form of state revenue-sharing could support selected public goods in cities—for example, public hospitals.
- At the metropolitan level, even limited revenue-sharing would help. For example, revenue generated by industry in the metropolitan area might be apportioned to municipalities in the area by a formula that would grant higher returns to jurisdictions with high proportions of residents in poverty.[15] This would reduce the competition for industry between metropolitan jurisdictions and would promote industrial location more suited to the environmental concerns of the whole metropolitan area. We recognize that revenue-sharing of this type would be extremely complex to accomplish across states; for that reason decisionmakers might consider limiting such a plan to the Missouri portion of the SMSA.
- Alternatively, a metropolitan earnings tax would be possible. Once again, revenues would be apportioned to area municipalities by a formula that would grant higher returns to jurisdictions with high proportions of residents in poverty.[16]

But what might the city do under *current* forms of generating revenue to lessen the incentives that encourage affluent citizens to move to other jurisdictions? (Though we address this strategy to the city, it would apply to any municipality.) Our analysis suggests that the most helpful strategy toward this end would be to gear the administration of municipal services and regulations to varying neighborhood needs.[17]

This practice is not new to municipal policymakers, though most jurisdictions maintain the *principle* of providing the same set of public services and enforcing the

[15] This is being done with part of the revenues from new development in the Minneapolis-St. Paul metropolitan area.

[16] Consideration of the implications of this alternative should be aided by research in progress on the earnings tax under the direction of Norton Long at the University of Missouri, St. Louis.

[17] Actually, there are several ways to accomplish this. One that considers jurisdictional changes within the city is discussed in Gardner and Payne, *An Economic Analysis of Central City Decline.* Other suggestions for how this might be done appear in Center for Urban Programs, *Recommendations on Legal-Administrative Policies for the City of St. Louis,* St. Louis University, 1971.

same regulations in all neighborhoods. However, since housing stock varies considerably as a municipality ages, it is not unreasonable to consider local policies that impose different housing codes on varying stock. In the past, makers of home loans (FHA, commercial and savings and loan banks), insurers of property, and owners of property have acted upon their individual expectations of the changing future of particular neighborhoods, escalating that change as they did so.[18]

However, if cities could show clearly how municipal services and codes will respond or *are* responding to neighborhoods undergoing racial or income transition, the anxieties of present or potential residents, anxieties that now lead to precipitous neighborhood change, might well be reduced. Clear public prescriptions of this kind could also lend support to citizens who seek financing for homes in transitional neighborhoods. Research in progress at Washington University[19] should be useful in determining the services that public policies should stress for transitional areas.

[18] See Institute for Urban and Regional Studies, *Urban Decay in St. Louis.*

[19] Leven and Little's Grant GI-37861-NSF, A Study of Determinants of Inter-Neighborhood Mobility.

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